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**Social presence in online multimodal communication:
a framework to analyse online interactions between
language learners**

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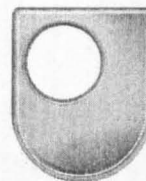
October, 2010

Date of Submission: 12 October 2010

Date of Award: 7 March 2011

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Abstract

New technologies permeate every aspect of life, not least human communication. Collaboration and social interaction have become buzz words in online communication and education mediated by Web 2.0 technologies and inspired by socio-constructivist theories of learning. Social presence theory explores this mediation through which individuals project themselves socially and emotionally into the community (Rourke, Anderson, Garrison, & Archer, 1999). Understanding the experience of social presence is crucial for its strategic use in online learning, while the pivotal role of communication makes social presence an indispensable component of language teaching. Although social presence theory has evolved from a media richness view as a quality of the media (Short, Williams, & Christie, 1976) to a relational view as a quality of relational aspects of communication (Kehrwald, 2008), the multimodal nature of new technologies has not previously been explored. Social presence research has also largely ignored the role of language (verbal or nonverbal, native or foreign) on the mediation process.

This exploratory case study investigates social presence in dyadic online foreign language interaction via desktop videoconferencing (DVC) between trainee language teachers. Multiple data sources (DVC recordings, interviews, questionnaires) are qualitatively analysed, drawing on principles of thematic analysis, interactional linguistics and social semiotics. The findings highlight the need for workable methods, tools and theories to research and analyse multimodal online communication. Social presence theory is revised to accommodate multimodal foreign-language interactions, and to incorporate potential differences between the ways individuals intend to project themselves and the ways this projection might be perceived by others in the community. An original approach to analysing and classifying language-learner interactions is demonstrated. Pedagogical implications stress the skills required to support rewarding educational experiences for both learners and teachers. Despite the specific features of the case study, the findings can be extrapolated to virtually all areas of online communication.

Acknowledgements

It is a pleasure to thank those who made this thesis possible. I owe my deepest gratitude to my supervisors Prof. James A. Coleman and Dr. Ursula Stickler, and also to Dr. Barbara Heins who was in my supervisory team for more than a year. This thesis would not have been successful without their endless enthusiasm, inspiration, advice and encouragement. I would also like to extend my sincerest thanks to my examiners Prof. Norbert Pachler and Dr. Regine Hampel and to my panel chair Dr. Linda Murphy for their invaluable suggestions at my viva voce.

I am extremely grateful for the financial, academic, administrative, technical and moral support I was provided with at the Open University, UK. This research would not have been possible without the studentship and the facilities provided by the university. I also wish to express my gratitude to many of my colleagues at the Faculty of Education and Language Studies, the conversations or work with whom improved me both personally and academically, including Mirjam Hauck, Janet Maybin, Marie-Noëlle Lamy, and Peter Twining. I would also like to thank Anne Foward and the administrative team at the faculty and the research school for their kind assistance whenever needed.

A special mention should be made of my participants and their tutors for their co-operation and for willingly giving their free time. I am deeply grateful to them.

I wish to say a big thank you to my dearest friends who accompanied me in this journey; Pelin Demirel, Julius Jwan, Sue Sing, Bea delosAcros, Fulden Underwood, Murat Acar, Maria Leedham, Mabelle Victoria and Natalia Yakavets. My special thanks go to Guozhi Cai, John Coen and Hale Ötegen, for their continuous belief and encouragement even to the final moments of the challenging writing-up process.

Sevgili anne ve babama sonsuz teşekkürlerimi sunarım.

Table of Contents

Chapter 1 Introduction	1
1.1 Areas of investigation (Research questions)	3
1.2 Structure of the thesis	6
Chapter 2 Literature review	7
2.1 Introductory remarks on literature review.....	7
2.2 Language learning and teaching	9
2.2.1 SLA Theories	10
2.2.2 FLL in distance education.....	16
2.3 Computer mediated communication (CMC).....	16
2.3.1 Language learning and teaching research in CMC	17
2.3.2 Interest areas	20
2.4 Social presence.....	26
2.4.1 Social presence within a community of inquiry	30
2.4.2 Social presence, DVC and FL	33
2.5 Concluding remarks on literature review.....	40
Chapter 3 Methodology	41
3.1 Introductory remarks on methodology	41
3.2 Philosophical stance	43
3.2.1 Ontological assumptions	44
3.2.2 Epistemological assumptions	45
3.2.3 Axiological assumptions	47
3.2.4 Rhetorical assumptions	49
3.2.5 Methodological assumptions	50
3.3 Research paradigm	52
3.4 Research approach.....	52
3.5 Research method: case study	54
3.6 Ethics and access	58
3.6.1 Ethics	58

6.3	Existing components of social presence.....	219
6.3.1	Building immediacy (affective).....	219
6.3.2	Sustaining interaction (interactive).....	235
6.3.3	Establishing intersubjectivity (cohesive)	248
6.4	Emerging concepts of social presence	259
6.4.1	Multimodality	260
6.4.2	Beliefs about online communication	290
6.4.3	Foreign Language	304
6.4.4	Apprehension and relaxation	308
6.5	Quantitative results	319
6.6	Three salient features.....	321
6.6.1	Code-switching.....	322
6.6.2	Mode-switching	325
6.6.3	Gaze	329
6.7	A framework to analyse social presence	337
Chapter 7 Conclusion		341
7.1	Summary of findings	341
7.2	Research questions revisited	346
7.3	Theoretical implications: social presence	349
7.4	Methodological implications: multimodal CMC research.....	349
7.5	Pedagogical implications: language learning.....	351
7.6	Main contributions to the field.....	353
7.7	Concluding remarks	354
References.....		356
Appendix 1: Information letter		379
Appendix 2: Consent form		380
Appendix 3: Table of data collected.....		381
Appendix 4: Tasks in phase 1.....		385
Appendix 5: Tasks in phase 2.....		390

Appendix 6: Background questionnaire 394

Appendix 7: Post-task questionnaires in phase 1..... 398

Appendix 8: Post-task questionnaires in phase 2..... 406

Appendix 9: Interview guide..... 415

Appendix 10: Transcription used for stimulated reflection..... 418

Appendix 11: Final questionnaire..... 419

Appendix 12: Transcription conventions 423

List of extracts

Extract 4.4-1 Pilot recording.....	82
Extract 5.1-1 You are interrupting me!	133
Extract 5.1-2 I will fight you with my English knowledge.....	135
Extract 5.1-3 Favourite singers 1	144
Extract 5.1-4 Favourite singers 2	148
Extract 5.1-5 Look at my watch.....	150
Extract 5.2-1 Here a photo.....	165
Extract 5.3-1 That's a confusing room (session 3)	178
Extract 5.3-2 I believe in you (session 4)	179
Extract 5.3-3 Sorry, I couldn't understand (session 2).....	181
Extract 5.3-4 I am bed (session 3)	182
Extract 5.4-1 I am very tall man (session 1).....	191
Extract 5.4-2 We have some festivals (session 2).....	194
Extract 5.5-1 That's all (session 4).....	203
Extract 6.6-1 You write okay	327
Extract 6.6-2 a lot of (session 3)	332

List of frequent abbreviations

CMC – Computer Mediated Communication

DVC – Desktop Video Conferencing

EFL – English as a Foreign Language

ELT – English Language Teaching

FL – Foreign Language

FLL – Foreign Language Learning

SLA – Second Language Acquisition

SP – Social Presence

Clarification of terms

Throughout this thesis, the word partner only refers to the interlocutor of the participants and do not represent the level of relationship.

Chapter 1 Introduction

In its earliest form, human communication required participants to be physically present in the same place. This requirement decreased considerably once writing was invented. Writing developed in its own unique functions and genres, and written and spoken codes began to diverge. Spoken language, or speech, still relied on physical co-presence until the advent of communication technologies: telephone, audio recording, radio, cinema, television and finally digital interaction, that is, internet communication technologies. Each of these has brought its own resources, opportunities and challenges to the communication environment. As technologies spread and converged, participants had to accommodate to new skills required by each new technology in order to successfully transmit their messages.

Recent online communication technologies offer easier global access to people, information and resources. Desktop videoconferencing (DVC) is one such tool providing online audio and video communication. One of the most widely and increasingly used free DVC tools is Skype. Launched only in 2003, and the name having inspired a new verb in the English language, Skype had 560m registered users by the end of June 2010 (<http://www.guardian.co.uk/technology/2010/aug/09/skype-plans-new-york-flotation>). 40% of its calls in the first half of 2010 included video communication.

Technological developments have always been picked up by the education sector to enable more efficient transfer of information and more efficient means of collaboration to enhance knowledge construction. The Open University, UK, has not been an exception, exploring virtual learning environments bringing learners and tutors together using a variety of written, audio and visual tools. Compared to other subjects, communication tools are most crucial for the learning of languages, given the evident need to

communicate with others in both written and spoken language. The development of the latter had always been a challenge in face-to-face teaching, let alone distance education. Even the Open University offered languages provision only 20 years after other subjects were introduced because distance language teaching was considered so problematic. Nowadays, there is a vast amount of research on technology-enhanced language learning, most of it on written computer mediated communication, with some work on spoken interaction and much less until very recently on video interaction. Few studies analyse interactions in multimodal contexts (where multiple modes co-exist for meaning making), for two main reasons. First, multimodal interactions require being able to send and interpret multimodal messages (multimodal communicative competence, Royce, 2007). Second, there is a lack of established research frameworks to analyse multimodal interactions.

As communication technologies offer faster and more reliable interaction among people who are physically apart, so does their capacity to imitate face-to-face communication. It is now possible to see several nonverbal behaviours such as facial expressions, smiles and physical characteristics with added features that enable written communication from a distance simultaneously with audio-visual interaction. Yet certain features of face-to-face communication which enhance feelings of being physically together with others, such as eye-contact (oculesics), touch (haptics), and physical distance (proximity), are still not possible via widely available tools. Interpersonal interaction is a key feature of contemporary online learning (Kehrwald, 2008) and mediation is a key consideration in learners' experiences. Communications technologies mediate between participants and introduce social and psychological distance between interlocutors.

Thus, a key variable in mediated interaction is social presence (SP), that is, participants' ability to present themselves socially and emotionally (Rourke et al., 1999). Social presence is also a crucial component for language learning which aims to improve

learners' understanding and expression of interactive, social and affective content. Social presence has a major role in creating an environment where learners are willing to put themselves at risk (Kehrwald, 2008) through expressing emotions and experiences as well as making linguistic mistakes. As social presence enhances connectedness and decreases psychological distance, it is central in maintaining interaction between language learners.

Despite being a very important element of contemporary education, especially distance and language learning, no shared understanding of social presence, its components and relevant analytical tools exists. Most social presence research has been conducted in text-based digital communication technologies and multimodal affordances of new technologies are largely ignored. It is also not clear whether language learners experience and establish their social presence in the same ways as native speakers do.

1.1 Areas of investigation (Research questions)

The following questions emerged through the qualitative research process. They represent how I set out to investigate the world. Some of them I discarded on the journey, and some I have investigated in greater depth. I revisit these questions in the conclusions. While the findings produced answers to some of these questions, some were left unanswered or found to be no longer valid.

My investigation commenced with a broad question: How is social presence experienced in desktop videoconferencing in an online language learning context?

Under this main question, several other questions guided the initial research design.

- In online language learning, how is social presence experienced and measured in desktop videoconferencing?
- Does social presence (SP) develop with time?

- Are some indicators of the SP framework (Rourke, Terry Anderson, D. Randy Garrison, & Archer, 1999) used less and/or more? Does the use of certain indicators change over time, for example, does humour increase and/or decrease with time?
- How do learners accommodate to different modes in creating their social presence online?
- Are there individual differences, such as gender, in the choice of certain indicators of SP?
- How close are DVC interactions to face-to-face encounters?
- Does the SP template, and thus content analysis, represent a valid measurement of SP for DVC interactions in a language learning setting? If so, to what extent is it possible to apply the SP framework to DVC?
- Are all indicators in the SP framework equally important? If not, which indicators explain for most of the variance? Which indicators of SP are underscored to compensate for lack of modes or understated due to availability of multiple modes?

These initial questions changed in line with the development of my understanding of the nature of research and methodology and my personal development throughout my studies. After finishing university as an EFL teacher, I started teaching English in Turkey for three years during which time I had the chance to observe learner needs and experience teaching practices. At the same time, I also did an MA degree and in my dissertation, I looked at the influence of different modes in CMC (written and spoken) on learners' speaking skills and anxiety levels via a pre-post test experimental design.

Following that I started my Master of Research (MRes) study at the Open University, and I learnt more about qualitative research and the interpretivist paradigm including methods such as discourse analysis and ethnography. My interest in using CMC for language

learning and teaching continued and I began reading about the community of inquiry (Col) framework developed by Garrison et al. (2000). Hence, my MRes dissertation involved an attempt to apply the Col framework to analyse instant messaging interactions between EFL teacher trainees and native speakers of English. I was using content analysis and I gathered learner journals to investigate participant views on the project and to find links to language learning. However, I was still quite positivistic in the use of my methods and my search for a single reality.

It was not until the end of the first year of my PhD study that I began to internalise the principles of the qualitative paradigm and interpretivist research. Following my mini-viva with Dr. Peter Twining and Prof. Gráinne Conole, I started thinking more about my understanding of methodology, and my take on ontology, epistemology and the research paradigms. As I read more, it became clearer to me that I wanted to explore the experience of social presence within the reality and context of the participants. This also coincided with my pilot study data collection and analysis. Trying to apply content analysis to the multimodal data produced via DVC using the social presence framework was a struggle. It was not clear how I could code even a simple indicator such as “smiles”, because while smiles were represented as emoticons in text-chat, in DVC, the smiles varied from giggles to laughter with many implications such as face-saving, enjoyment or sarcasm. To cut a long story short, when I finally started collecting and analysing data, I had already discarded some of the above research questions as I was no longer interested in the power of each social presence indicator in the framework to explain variance in total social presence or whether the template would be valid in this new context of multimodal online interaction in FL. Moreover, my research took on an exploratory quality and the questions became only starting points for the investigation of how social presence was experienced.

Throughout this journey, I personally developed from being a person who accepts the

existence of a single truth to one who believes in the existence of multiple realities in different contexts and the importance of qualitative exploration of experiences. These changes are reflected in the identification of the research questions, selection of methods, analysis and findings presented here.

1.2 Structure of the thesis

In subsequent chapters, I first position the study within a sociocultural theory of language learning. I then review relevant literature in CMC and social presence. In Chapter 3, I discuss and present my philosophical stance and in Chapter 4, I explain data collection tools and illustrate thematic and multimodal analysis methods. Chapter 5 explores the unique contexts of each case by presenting data from various sources including analysis and discussion of learners' DVC recordings. In Chapter 6, I propose a framework of social presence to analyse learner interactions mediated via DVC and foreign language. I also explore three salient features, which are gaze, code switching and mode switching. I conclude in Chapter 7 by providing a summary of the main findings, discussing theoretical, methodological and pedagogical implications as well as directions for further research.

Throughout this thesis, quotations from interviews and some questionnaire data are translations into English, unless stated otherwise. Turkish data can be made available on request.

Chapter 2 Literature review

2.1 Introductory remarks on literature review

In the introduction to the *Handbook of Language Teaching* (Long & Doughty, 2009), Long situates the importance of second or foreign language within the current socio-political and economic expectations and requirements of the contemporary world. There is no doubt that the prominence of language learning and teaching and relevant practices are evolving alongside technological developments in communication.

The definition of communication, whether verbal or non-verbal, mediated or non-mediated, is a complex one and a single definition on which everyone agrees is hard to find. In this study, I draw on a social constructionist theory of communication where the context cannot be separated from the message and where communication is a venue for idea generation and performance of identities through interaction. In this process, people use the available modes as valuable resources for meaning making and negotiating understanding. The availability and function of these resources become more prominent especially in computer mediated communication (CMC). Resources in such environments are different from the resources found in face-to-face communication and thus, participants need to develop or learn new ways of communicating. While text only CMC require participants to rely on textual multimodality, such as the use of capital letters and emoticons, recent developments of audio-video CMC provide many modes for meaning making. These differences may determine not only how meaning is communicated, but also what is communicated as in the concept of “flaming” where people feel less inhibited given the anonymity of text-only CMC. In the changing modes and resources of communication, people require new skills to construct their messages and project their social presence as well as to interpret others’ messages and social presences accurately. In a language learning context via CMC, the skills of using available modes properly could

lead to the creation of decreased psychological distance among physically distant partners to allow suitable areas for knowledge construction.

The present research is at the intersection of many research domains including multimedia, semiotics, nonverbal communication, computer mediated communication, second language acquisition, social presence and interactional analysis. This arises from the research questions which aim to explore the experience of social presence in a multimodal computer-mediated context provided by desktop videoconferencing based on language learner interactions in a foreign language. Thus, in this section, I provide an overview of the development of language teaching practices and second language acquisition (SLA) theories which have inspired language learning and/or teaching research in computer-mediated communication (CMC) contexts. What follows is a summary of language learning and/or teaching research in CMC with particular emphasis on desktop video conferencing (DVC) and emerging research on gaze, use of different modes and use of native language. I then move on to the theoretical framework used in this study to analyse learner interactions. I explain the development of social presence (SP) theory, discuss issues of measurement, present its place within the community of inquiry framework, and explore current research on SP, specifically in relation to foreign language (FL) and DVC contexts.

I limit my literature search especially in the fields of education and especially language education research via CMC and draw on fields of communications, psychology, sociology and linguistics as necessary. Also I draw on references in English and Turkish only.

I do not distinguish between foreign and second language learning in the present introduction, but it is important to note that the context of the current research is English as a Foreign Language (EFL). Still, the findings can be applicable to other foreign language learning (FLL) contexts.

The present chapter does not review methodological concerns, which are principally addressed in Chapter 3.

2.2 Language learning and teaching

Histories of the inseparable fields of language learning and language teaching (Howatt, 2004; Richards & Rodgers, 2001; Stern, 1987) trace the development of materials, principles and methods since the 15th century. Around 1970s, the focus shifted from teaching methods, such as the grammar translation and the direct method, to communicative approaches, with an emphasis on appropriate conditions, needs of the learner and context (Howatt, 2004). Communicative language teaching emerged as a widespread approach, the essence of which was “the engagement of learners in communication to allow them to develop their communicative competence” (Byram, 2004, p. 128). Communicative competence is defined as the ability to produce socially and situationally acceptable utterances (Hymes, 1972) and entails the “knowledge how to participate in speech events according to the conventions of the community” (Block, 2003, p. 61). Graham (1997) further explains the concepts of linguistic, communicative, pragmatic and strategic competence, each of which has become a recognised element of proficiency with its own research domain.

Currently communicative language teaching is seen as an approach and theory that can lead to the exploration of methods and techniques (Byram, 2004) fit for the larger cultural context. In this exploration, teachers are seen as key practitioners who can work in collaboration with applied linguists, theory builders and policy makers “in addressing the language needs of the next generation of learners” (Savignon, 2007, p. 218).

Within the communicative approach to language teaching the significance of language use the way it is used “in the real world” (Howatt, 2004, p. 326) triggered the spread of task-based language teaching as a communicative method (van den Branden, 2006; Ellis, 2003; Long, 1995; Nunan, 2004; Skehan, 1998). Pica, Kanagy, and Falodun (1993)

defined tasks as “activities designed for learners to talk, not just to produce oral language as an end in itself, but as a means to share ideas and opinions, and to collaborate towards the accomplishment of a goal”. They also developed a typology of tasks which inspired many classroom and CMC studies influenced by both cognitive and social theories of second language acquisition (SLA).

2.2.1 SLA Theories

While teaching practice followed an eclectic but mainly communicative approach, as Firth and Wagner (2007a, p. 804) asserted, SLA research “has, over the last decade in particular, undergone a bifurcation between a cognitive SLA ... and a sociocultural/ sociointeractional SLA”. Firth and Wagner (2007a, 2007b) suggest that cognitive SLA, or mainstream SLA, focuses on errors, input modification, fossilization and the etic (analyst-relevant) perspective and social SLA pays attention to collaboration, social participation and the emic (participant-relevant) perspective. They further acknowledge more recent approaches such as the ecological perspective (Kramsch, 2002) which considers the interactional and contextual properties of language acquisition or the chaos/complexity theory (Larsen–Freeman, 1997, 2007a) which studies the nonlinear and dynamic nature of language. Acknowledging the existing theoretical pluralism in the field of SLA, Larsen–Freeman (2007b) proposed chaos/complexity theory, where the conflicting cognitive and social perspectives intersect, as a potential theoretical frame for future SLA research. Likewise, Ellis (2008) also pronounced the inevitability of theoretical pluralism and argued that all theories should be “evaluated in terms of their context and purpose”. He also argued for a sociocognitive account of learning which investigates social alignment, cognitive procedures involved in this alignment and the resulting language transfer, that is, change in learners’ knowledge and use of language. In the context of computer-assisted language learning (CALL), Chapelle (2009) explored four approaches (cognitive linguistic, psycholinguistic, human learning and language in social context) and argued that use of technology could challenge SLA research. Atkinson’s (2010) report on a 2009 American

Association for Applied Linguistics Annual Conference colloquium reviewing alternative theories, including sociocultural theory, conversation analysis for SLA, complexity theory, ecology of language learning and teaching, and sociocognitive approaches, illustrates the complexity of the field. However, the two principal axes are cognitive SLA, which has hitherto dominated language learning and teaching research via computer mediated communication (CMC), and sociocultural theory, which underpins the present study.

Cognitive SLA

Following Jean Piaget's (1896-1980) cognitive development theory, which proposes that development of the child's mind occurs in interactions with the surroundings, cognitive SLA investigates instances of language development observable in learner interactions. Cognitive SLA underlines hypotheses which focus on comprehension, production, interaction and noticing. The input hypothesis (Krashen, 1985) considers comprehensible input as the basis for linguistic improvement and comprehension of new forms as facilitating acquisition and production. For Swain (1985), input was not sufficient and learners would need to produce comprehensible output for language development. Through output, she argued that the learner will be pushed to modify incomprehensible speech with specific attention to form. Furthermore, Long (1985; 1983) argued that learners cannot be expected to naturally notice and modify problematic utterances and stressed the role of interaction among learners in terms of providing feedback to facilitate location of errors and making appropriate modifications. Lastly, Schmidt (1990) proposed the noticing hypothesis which differentiated between input and intake, the latter suggesting interlanguage development via a conscious awareness of and attention to input, output and feedback.

Based on these hypotheses, a variety of analytical units have been utilised to investigate language development both in classroom and CMC interaction, such as negotiation for meaning (Varonis & Gass, 1985), incidental focus on form episodes (Loewen, 2003, 2005;

Loewen & Reissner, 2009), and recasts and self-corrections (Lai & Zhao, 2006).

Negotiation for meaning (NfM) has attracted much attention in face-to-face and CMC settings (e.g. Pica, Lincoln-Porter, Paninos, & Linnell, 1996; Shekary & Tahririan, 2006). Especially in Task-Based Language Teaching (TBLT) research, analysis of NfM sequences sometimes resulted in contradictory results and was criticised for its potential in evaluating tasks. For example, Bitchener (2003), who compared free conversation and decision making tasks in a face-to-face setting with advanced level learners, identified a significantly higher amount of negotiation in free conversation; whereas Gass, Mackey and Ross-Feldman (2005), who studied face-to-face Non-native Speaker/Non-native Speaker (NNS/NNS) interactions among 74 students and compared required and optional information exchange tasks, obtained a significantly higher amount of NfM in required information exchange tasks.

Investigating communication breakdowns as triggers for NfM sequences, and thus interlanguage development, has received criticism from researchers looking at interactions from a humanistic perspective. For instance, Aston (1986) focused on three studies to explore interactionist research by Long, Scarcella and Higa, and Varonis and Gass. He argued that the frequent breakdowns observed in NS/NNS interactions could be due to a lack of shared background, and the high frequency of the difficult interactions could lead to frustration. He suggested that learners needed to develop strategies to establish and maintain social rapport in order to create a non-threatening environment where language mistakes are accepted. Almost 20 years later, Foster and Ohta (2005) made a similar criticism about the extensive emphasis on communication breakdowns. They demonstrated a low incidence of NfM in classroom interactions and evidenced peer assistance, encouragement and self-repair without the existence of NfM sequences. They concluded that NfM could be an inaccurate measure in depicting the value of tasks and suggested that supportive and friendly discourse should be the priority in learner

interactions rather than NfM “which can be irritating and frustrating” (Foster & Ohta, 2005, p. 408).

Cognitive SLA has thus produced valuable tools and useful research to enhance our understanding of language development processes, but sidelines the social perspective in SLA within which I frame the present study.

Social SLA

Evolving from the work of the Russian psychologist and semiotician Lev Vygotsky (1896-1934), sociocultural theory brings learning from an intra-personal level to an inter-personal level and “the most fundamental concept ... is that the human mind is *mediated*” (Lantolf, 2000, p. 1, original emphasis). Sociocultural theory emphasizes that the locus of learning is not exclusively within the individual’s mind but, rather, is a product of social interaction with other individuals (Darhower, 2002, p. 251). More specifically, development occurs as the result of meaningful verbal interaction between novices and more knowledgeable interlocutors such as parents, peers, or teachers (Vygotsky, 1978). Learning is conceptualised around the concepts of mediation, scaffolding and Zone of Proximal Development (Block, 2003, pp. 100-101). Vygotsky asserted that “meaning, sense, emotion, expressiveness, culture and history” were fundamental to understanding the human mind (Lantolf, 2001, p. 142). According to Firth and Wagner (2007a, p. 805), Lantolf, with several collaborators (e.g. Lantolf, 2000; Lantolf & Appel, 1994; Lantolf & Thorne, 2006; Pavlenko & Lantolf, 2000), has engaged in SLA theory-building in the Vygotskian tradition, producing what has become known as the sociocultural approach to SLA.

In terms of TBLT research, sociocultural theory claims that language learning takes place “not through interaction but in interaction” (Ellis, 2000, p. 209). It also highlights the importance of interactional discourse (friendly social relations) over transactional

discourse (accurate transfer of information) (Brown & Yule, 1983). The teachings of the sociocultural approach are conjoined under Leontiev's Activity Theory which investigates how, where and why the person acts the way s/he does (Block, 2003; Lantolf, 2001). Highlighting the co-construction of the language through the activity (Coughlan & Duff, 1994),

... sociocultural approaches are employed to understand student activity during the process of task completion, and task-based pedagogy is used to induce collaboration among students to make scaffoldings available (Tanaka, 2005, p. 25).

To illustrate the influence of sociocultural SLA in the field of CMC research, I briefly describe three studies (Darhower, 2007; Gánem Gutiérrez, 2006; Lamy, 2007a).

With a collaborative focus of study, Gánem Gutiérrez (2006) compared collaborative activity in document creation, problem solving and dictogloss tasks in face-to-face and computer settings for language-related talk, task-related talk and off-task talk. While all three tasks were found to support high degrees of collaborative activity, there were differences in the quality not in the quantity for language-related, task-related or off-task talk. She also defined her analysis as HQC [High Quality Collaboration], and called for more studies to test its methodological value.

Lamy (2007a) accepted the definition of meta-chat as communicating about communication. She concluded that:

... metalinguistic conversations [are] vehicles for the simultaneous pursuit of cognitive and socio-affective negotiations, and the realisation of learners' sense of self and orientation to the community ... metachat is neither fortuitous nor trivial, and offers rich possibilities for identity-building and enactment of agency within

social settings, while discharging its traditional function as a source of information on the L2 (Lamy, 2007a, p. 261).

Darhower (2002, 2007) investigated linguistic and social behaviours and interpersonal relationships of foreign learners in text-based SCMC interaction using the metaphors of community and participation. In his earlier work, he observed several interactional features in intercultural interactions via SCMC including intersubjectivity, off-task discussion, social cohesiveness, greeting and leave-taking, use of humour, identity and role play, sarcasm and insults, and use of English (as native language). In his later work, he explained his understanding of community of practice as follows:

Wenger (1998) established three criteria for defining a CoP. When members of the CoP accomplish something on an ongoing basis, they have a 'joint enterprise.' Members have 'mutual engagement' when they interact with one another to clarify their work and to define and even change how the work is done. Through this mutual engagement, members establish their identities relative to the community. A 'shared repertoire' refers to the methods, tools, techniques, language, and behavior patterns that comprise the cultural context for the members' work. In the participation view of SLA, learners ideally integrate themselves as full participants in some type of community that employs the L2 as its means of communication (Darhower, 2007, pp. 562-563).

Darhower (2007) illustrated two case studies on the two ends of the continuum for a camaraderie level of community. He particularly examined the establishment of the roles, membership, agreement, leave takings, absenteeism, sarcasm, impatience, humour, and linguistic affordances. He observed that in the group that reached the camaraderie level error correction was indirect and occurred only if requested or where comprehension was impeded. With the other group, that could not reach a camaraderie level, error correction

created uneasiness, was on aspects “which had minimal communicative value and did not appear to impede communication” and was “often not taken up by the recipients” (p. 582).

2.2.2 FLL in distance education

One of the main challenges of teaching languages at a distance is the need to foster interaction and develop speaking skills. Coleman, Hampel, Hauck and Stickler (in press) provide a review of how languages have been successfully taught at the Open University context. It has long been established that distance learning should take a whole person approach where learning occurs via “engaging with and attributing meaning to the world, including self in it” (Boot & Hodgson, 1987, p. 6).

In the Turkish context, the language teaching system has been criticised for its insufficiency and inefficiency even in on-site contexts (Işık, 2008; Soner, 2007), let alone in distance education. To overcome these difficulties, the need for the development of intercultural competence has been mentioned by many (e.g. Alptekin, 2002) and the ministry of education expressed its support for the provision of languages in distance education (Adiyaman, 2002).

As emphasised by Volle (2005), computer mediated communication (CMC) is of special importance in distance education, in particular in relation to the development of foreign language oral skills by providing an opportunity for interaction and communication among learners.

2.3 Computer mediated communication (CMC)

CMC is the “communication that takes place between human beings via the instrumentality of computers” (Herring, 1996, p. 1). This instrumentality provides access to multiple modes and interactions distinct from face-to-face encounters. Learners and tutors

at a distance can interact individually or as a group via CMC. These interactions can take place either simultaneously (Synchronous CMC - SMC), such as in text-chat and videoconferencing, or subsequently (Asynchronous CMC - ACMC), such as in e-mail, blog and forum. While some of these interactions would be realised in a single mode, such as in e-mail, voice-mail, forum posts, etc., others could be multi-modal, such as e-mails including pictures, videos and hyperlinks, Virtual Learning Environments (VLE) that allow text, audio, video communication, application sharing, voting and whiteboard or virtual worlds with text, audio communication and graphical representation of users (avatars) in a virtual space.

CMC provides unique opportunities for collaboration and online discussion in distance learning. CMC also assists learners "in terms of motivation and overcoming a sense that distance language learning is an impersonal experience; it can give participants a sense of being part of a cohort of learners, even a community of learners" (White, 2003, p. 51).

2.3.1 Language learning and teaching research in CMC

Earliest studies on CMC in language learning settings showed that some students taking part in text-based SMC felt "freer to communicate in what they considered a more informal atmosphere" and shyer students in face-to-face settings "participated more actively" (Kern, 1995, p. 470). Warschauer (1996) observed more equal participation in the CMC environment, and mentioned the opportunity CMC creates for the students "to pause and pay closer attention" to the text when they need, thus creating "opportunity for reflection in the midst of interaction" (Warschauer, 1997, pp. 472-473).

A variety of research in CMC was conducted on asynchronous (ACMC) or synchronous (SMC) modes, compared various tasks to guide learner interactions, involved native speaker (NS) and nonnative speaker (NNS) or learner-learner interactions, initiated

intercultural telecollaboration in tandem or tridems, and focused on single or multiple modes (text, audio, video, virtual environments, etc.)

Studies in ACMC for language learning have focused especially on e-mails (e.g. Knight, 2005; Little & Ushioda, 1998) and discussion boards (e.g. Sotillo, 2000; Tanaka, 2005). SCMC was also observed to have features similar to speaking (e.g. Tudini, 2003); which led to an investigation of the effects of text-based SCMC on the development of foreign language speaking skills (e.g. Negretti, 1999; J. S. Payne & Whitney, 2002). Many scholars to date have further examined written SCMC from a variety of perspectives for foreign language development (e.g. Abrams, 2008; Markus Kötter, 2003; Lai & Zhao, 2006; Smith & Sauro, 2009; Thorne, 2003).

Many studies subsequently compared the task types in both ACMC and SCMC contexts testing their effectiveness to trigger more negotiation for meaning (NfM) sequences. However, most of these studies produced contradictory results (e.g. Blake, 2000; Smith, 2003). Other studies explored the potential of intercultural telecollaboration in CMC setting up tandem (e.g. Lewis, 2003; Stickler & Lewis, 2003) or tridem (e.g. Hauck, 2007) interactions. Other research in the area investigated reasons of failed collaborations including social and institutional dimensions (Belz, 2002; O'Dowd & Ritter, 2006) and demoralisation due to asymmetries in proficiency especially in interactions between NSs-NNSs (Lee, 2004).

As internet bandwidth increased and became widely accessible, synchronous voice-based communication also became feasible (e.g. Hampel & Hauck, 2005; Hampel & Baber, 2003; Heins, Duensing, Stickler, & Batstone, 2007). Significant outcomes of audioconferencing include interactive competence (M. Kötter, 2001); pronunciation related repair moves (Jepson, 2005); negotiation for meaning, repairs and increased learner satisfaction (Blake, 2005); less privacy (Scheffel-Dunand, 2006); higher anxiety (Hampel,

Felix, Hauck, & Coleman, 2005); fewer distractions, hence listening more carefully, and a comfortable environment for shy learners which is reported by the learners as "[h]ow can you make a fool of yourself if no one can see you?" (de los Arcos & Arnedillo Sánchez, 2006, p. 91). Overall, audiographic conferencing has been considered as an effective way of online tuition in distance learning environments (Hampel & Hauck, 2004), and has revealed a need for a redefinition of FL oral competence in these multimodal environments (Lamy, 2004).

Increasing bandwidth and ease of access to internet and technology have enabled even more access to multimodal interaction including video conferencing. However, research investigating video interactions had been scarce and started to increase only recently. In one of the earlier studies exploring videoconferencing in FL (McAndrew, Foubister, & Mayes, 1996), the use of video call was limited to rehearsing role plays or clarifying certain points in learning. Video was seen as a motivating factor with certain challenges, such as lack of eye-contact and a source of cognitive load. Later on, in a pilot study conducted by O'Dowd (2000), videoconferencing was reported as a powerful medium to support intercultural interactions. However, between 2000 and 2007 there was little research in video CMC for language learning purposes. During this time Wang (2004a, 2004b, 2006, 2007, 2008) was the main author in the area exploring the use of NetMeeting, looking at task design and negotiation for meaning in desktop videoconferencing (DVC). Her findings indicated that DVC supports a rich environment provided by text, audio and video modes, but can also put pressure and strain on learners and tutors (2006). She also concluded that facial expressions and gestures visible through the video facilitated task completion and learners' proficiency levels were observed to improve (2007).

Recent research in DVC emphasised the authentic sociocultural context, that is, the integration of intercontinental telecollaboration activities via DVC into learners' academic

life, to enrich the language learning experience through active participation in interaction (Jauregi & Banados, 2008). In contrast, Örnberg Berglund (2009) observed that learners participated in DVC interactions in long monologues. However, this result should be evaluated carefully, as the DVC tool in the study (Flash Meeting) only allows one interlocutor to speak at a time and does not allow interruptions. In another study via Flash Meeting, Hopkins (2009) quoted from one of his participants that when others did not have webcams, it felt like talking to people who do not take their sunglasses off. These studies reflect learners' multiple perceptions of and practices in DVC settings. Moreover, research in software development has also begun to recognise the need for DVC tools developed specifically for the requirements of language learners and teachers (Guichon, 2010).

2.3.2 Interest areas

Following this introduction into CMC research, I introduce the main research areas related to the present study: apprehension, code-switching, gaze, mode-switching, silence and intersubjectivity.

Apprehension

"Computer-mediated communication anxiety is an individual's level of fear or apprehension associated with actual or anticipated use of information technology to communicate with others" (Brown, Fuller, & Vician, 2004, p. 83). While a clear relationship between CMC apprehension and CMC presence has not been produced yet (Wrench & Punyanunt-Carter, 2007, p. 373), Scott and Timmerman (2005) stated that CMC apprehension could reflect users' anxiety about communicating via certain technologies. For instance, participants might feel anxiety in communicating via non-images systems due to lack of nonverbal cues such as intonation or nodding (Yamada & Akahori, 2007). Moreover, FL anxiety and other emotions (such as regret and anger) in CMC settings

could be a challenge to learning (de los Arcos, Coleman, & Hampel, 2009; Hauck & Hurd, 2005; Hurd, 2007).

Code-switching

Code-switching has been of interest to FL researchers. While earlier theories suggested minimum use of native language in teaching FL, recent works come to see native language as a valuable resource, including being less alienating, fostering motivation and good relationships (Cook, 2010).

In CMC settings, Kötter (2003) investigated code-switching in learner interactions in a text-based MOO environment, a computer-based technology similar to text-chat, but where learners can set up profiles and manipulate objects in the written virtual world. In a tandem telecollaboration, 29 learners met twice a week over four months. Less advanced learners were observed to ask explicit help by codeswitching, that is, asking the translation of unknown words or phrases. Their interlocutors responded positively to all requests and about a third of these requests provoked more linguistic discussion on the usage or background to the expression. Learners were found to code switch due to a lexical need, for highly culture or context bound meanings, to establish and maintain mutual understanding and to scaffold the task.

Another study on codeswitching in CMC investigated the frequency of code-switching and the topics that triggered switching (Cárdenas-Claros & Isharyanti, 2009) from a social perspective of code-switching practices of cultures. The analysis included 12 advanced learners of English from Latin American and Indonesian cultures in an American university. Their initial review of previous research pointed "to the tendency of bilingual speakers to use the language they identify the most with to express personal thoughts and topics that convey a degree of intimacy" (p. 73). In contrast, their analysis of 40

instances of text-chat conversations revealed that most code-switching to English occurred in farewells, academic topics and computer related terms.

These two studies illustrate two various approaches to code-switching, from a linguistic point of view and a sociolinguistic one.

Gaze

Full gaze awareness is considered as knowing where one is looking, partial gaze awareness means knowing the direction of another's gaze and mutual gaze is usually referred to as eye-contact (Gale & Monk, 2000). Mondada (2006) analyses how gaze, in relation to other resources, such as gestures, body leaning and manipulating objects, is used as a multimodal resource in organising the activity (negotiating meaning and turn-taking) in a business meeting. While gaze is an important resource in face-to-face interactions, it is difficult to establish in desktop videoconferencing (DVC) settings due to different positions of the webcam and the position of eyes on computer screen (Grayson & Monk, 2003). Grayson and Monk (2003) recommended that for optimal mutual gaze, "the video camera should be placed as close to the image of the remote participant as possible" (p. 241) with a head and shoulders view. They suggest that within this setup, people can learn to interpret gaze.

In language learning situations via DVC, two recent articles explore gaze, which I review in more detail here. Lamy and Flewitt (in press) analysed DVC interactions via MSN messenger in tandem learning. They described the online interaction of one pair based on Scollon and Scollon's idea of geosemiotics. Under the category of personal order (which is under interactional order), they illustrated four different types of gaze namely looking at interlocutor, own image, camera, and chat window. They used stimulated recall to identify where the participants' gaze was. Interviews with the participants indicated uneasiness

aroused from looking straight into the webcam and impossibility of eye-contact when interlocutors looked at the webcam at the same time.

Develotte, Guichon and Vincent (2010) investigated how language teachers learn to teach via DVC in Skype. 11 French graduate teacher trainees learning to teach FL online were paired up with 16 French learners from an American university for eight sessions. The gaze of five teacher trainees during the sixth session was analysed and semi-structured interviews were conducted. The findings indicated three different types of behaviour of teacher trainees: preferring the audio mode and only looking at the learner's image a quarter of the time; mixed use dealing with multiple tools simultaneously; and exclusive use of webcam making sure the learner's image was visible at all times. Teacher trainees were observed to use the webcam mainly to increase empathy supported by their facial expressions and less to communicate information. The socio-affective indicators, such as laughs and smiles, were found to "help construct an interpersonal relationship between the teacher trainees and their students" (p. 14). Moreover, 5 degrees of utilising the webcam were identified, 0 indicating no use of webcam and 4 indicating a direct look at the camera. Although the fourth degree was recommended to increase co-presence, semio-pedagogical skills needed to determine when to use what degree of intensity were foregrounded in the conclusions.

Mode-switching

The findings of the above study by Develotte et al. (2010) indicated that there was very little use of text-chat and the authors concluded that "the mere availability of a given tool does not necessarily imply its use" (p. 12).

From a socio-psychological perspective, Sauro (2009) investigated the strategic use of text-chat in bimodal CMC interaction (audio and text-chat). She analysed 20 minutes interaction of two NNSs of English via a voice-chat tool (Yahoo! Messenger) completing a

decision making and a jigsaw task. While their use of text-chat was partly due to the requirements of one of the tasks, it was not explained by comprehension problems. By qualitative discourse analysis of the interactions within a perspective of positioning, Sauro illustrated how one of the participants positioned and repositioned herself as a more dominant and productive participant in the interaction through her higher amount of utilisation of the text-chat tool than her interlocutor (27 turns out of 29).

Hampel and Stickler (in preparation) also explored the use of text and voice chat. The study used data collected from learner and tutor interactions via Flash Meeting (a DVC tool developed at the Open University) as part of a larger project including various CMC tools such as wikis, blogs and forums (Stickler & Hampel, 2010). The participants were 20 learners of German who took up a 5 weeks intensive course offer and 2 tutors. The analysis of the data indicated that the main mode of communication was audio and text-chat was used for parallel but secondary purposes. These included cognitive (co-constructing knowledge), affective (supporting one another) and social aspects (establishing relationships). The authors identified the specific uses of text-chat mainly by the learners to negotiate meaning (including assertions, requests and challenges) and by the tutors to facilitate interaction (including summaries, feedback, recasts and reinforcement). The findings also underlined the way learners accommodated the affordances of the tool to their own needs by compensating for the difficulty of backchannelling in Flash meeting (low frame rate and no audio for listeners) with text-chat. Overall, three approaches of text and audio modes use were observed; complementing each other, compensating for each other and parallel use.

Silence and intersubjectivity

Two other concepts I will introduce are silence and intersubjectivity in interpersonal relationships.

Perspectives on Silence (Tannen & Saville-Troike, 1985) brings together several articles on the role of silence in face-to-face environments from psychological, ethnographic, cultural and nonverbal perspectives. Some of the functions of silence include a way of meaning making, a tool for impression formation, facilitator of cognitive processes and a part of communicative style which might lead to cultural stereotypes. In distance language learning, Stickler and her colleagues (Stickler, Batstone, Duensing, & Heins, 2007) investigated silences and gaps in online and telephone tutorials, both of which lack visual cues. They reviewed possible reasons of silences in especially beginner classes including lack of linguistic skill (inability to fully express oneself and preferring silence over misrepresentation), avoidance of mistakes, thinking time fostering reflection and creativity, cultural reasons as well as power and gender differences. They highlighted the view that silence could either mean action (way of engaging) or inaction (refusal to engage). The findings suggested longer silences in online audio communication than telephone and interpreted as a result of different qualities of the media. Silences in the online environment also occurred due to technical glitches such as not pressing the button to speak and connection failures and technical affordances such as typing, raising hand and voting symbols.

Lamy and Flewitt (in press) perceived intersubjectivity as a crucial notion in their multimodal analysis of meaning making between two people mediated by the computer. They define intersubjectivity as “the psychological characteristic of recognizing and taking into account others’ subjectivity” and link it with interlocutors attempt to establish a common frame of reference to accomplish understanding. Other definitions of intersubjectivity focus on sharing as a capability (Tirassa & Bosco, 2008), sharing of subjective states (Scheff, 2006) and “sharing of experiential content (e.g. feelings, perceptions, thoughts and linguistic meanings) among a plurality of subjects” (Zlatev, 2008, p. 1). As will emerge later, intersubjectivity is an important component of social presence.

2.4 *Social presence*

The concept of social presence (SP) was originally introduced and defined by Short, Williams and Christie (1976, p. 65) as “the degree of salience of the other person in a mediated interaction and the consequent salience of the interpersonal interaction”. The theory was introduced as an attempt to differentiate between mediated (e.g. telephone) and non-mediated (face-to-face) interactions and was initially treated as an attribute of the medium where the “capacity to transmit information about facial expression, direction of looking, posture, dress and non-verbal vocal cues, all contribute to the Social Presence of a communications medium” (Short et al., 1976, p. 65). Hence, SP emerged as a theory of communications media and was closely related to media richness theory (Daft & Lengel, 1986) which suggested that there should be an optimal fit between the information richness provided by the mediating media and that required by the task (Fletcher & Major, 2006). Within this view text based CMC was assumed to be a “lean” medium in comparison to face-to-face interaction (Spears, Lea, & Postmes, 2001, p. 605) only suitable for unequivocal communication. While reduced social cues in lean media sometimes led to an increase in deregulated or extreme behaviour (e.g. flaming) as they “undermine the social and normative influences”, they also undermine “status and power differentials” observed in face-to-face interaction “leading to more equalized and egalitarian participation” (Spears et al., 2001, p. 608).

Later theories of communication media (i.e. social information processing and social identity model of deindividuation effects) introduced a relational view stressing the human agency and capacity to adapt to lean media and develop strategies to compensate for reduced cues (Walther, 1992; 1994). Likewise, Gunawardena (1995) asserted that despite low social contextual cues afforded by text-based CMC, participants' perception of the medium would be based on their sense of community and thus the relationships could be social, active and interactive. Thus, subsequent research began to perceive SP as a quality of the relational aspects of communication as opposed to a quality of the media.

Although this relational view still guides SP research, a shared definition of SP has yet to be reached (Biocca, Harms, & Burgoon, 2003; Kehrwald, 2008; Lowenthal, 2009). Some scholars approach SP from a theory of mediated presence and distinguish between telepresence, co-presence and social presence. While telepresence refers to the feeling of being there, that is, inside the media, co-presence refers to being there with the presence of others (Schroeder, 2002). Gunawardena and Zittle's (1997, p. 8) definition of SP as "the degree to which a person is perceived as real in mediated communication" fits in this understanding of co-presence. Furthermore, in addition to physical perception of others, SP is achieved when the person in mediated interaction feels "a sense of access to another mind" (Nowak & Biocca, 2003, p. 482). In a similar vein, Tu and McIsaac (2002, p. 140) emphasised the individual's presence as an intellectual being and defined SP for text based CMC as "the degree of feeling, perception, and reaction of being connected by CMC to another intellectual entity through a text-based encounter".

Other studies focused on interpersonal transactions and the skills of the interactants. These studies defined SP with an emphasis on awareness of the interaction and appreciation of the interpersonal relationship (Chih-Hsiung Tu, 2002), the ability of the individual to demonstrate his/her availability for and willingness to participate in interaction (Kehrwald, 2008), affective connection between the interactants (Swan & Shih, 2005) and social and emotional projection of the self into the interaction (Rourke et al., 1999).

Except for Kehrwald's (2008, 2010) case study of SP as experienced by the learners, most definitions and research in the area reflect the researcher's perspective. Kehrwald investigated SP in four online postgraduate education courses from the perspectives of learners via dialogic interviews and focus groups. His findings indicated that SP is a performative and dynamic quality which is established and maintained by ongoing demonstration of SP in the community through visible action, such as posting messages, which contain topical and relational cues that enable participants to get to know one

another. He argued for degrees of presence from telepresence, co-presence to psychological and behavioural engagement. He argued that SP is a subjective quality which involves “subjective projections of self ... into technology mediated environments, subjective assessments of others’ presence and assessments of the subject’s relations with others” (Kehrwald, 2010, p. 41). In Kehrwald’s research while SP emerged as a cumulative quality developed via past experiences between individuals, the quality and recency of the interactions were reported to create a stronger degree of SP. Moreover, Kehrwald (2008) stressed the importance of learners’ ability to send and read SP cues and the way in which these skills are learnt intersubjectively “through seeing and experiencing how others project themselves into the environment, how others interact with one another and how others react to their personal efforts to cultivate a social presence” (Kehrwald, 2010, p. 47). His contribution to the understanding of SP illustrates the value and need for more research from the learners’ perspective. Yet, his work and definition of SP, as are the rest of the definitions stated above, has been developed for text-based and mainly asynchronous CMC interactions. They all ignore the influence of the multimodal elements and the skills needed for the projection of the self via emerging CMC technologies. Furthermore, another area left for further investigation is “the performative nature of social presence and the implications for participant activity in online learning environments” as well as mediated interaction and collaboration (Kehrwald, 2008, p. 98).

In the present study, I accept the definition of SP as “the ability of learners to project themselves socially and affectively into a community of inquiry” (Rourke et al., 1999, p. 50). Rourke et al.’s (1999) framework, which I later explain in detail, has three dimensions: affective, interactive and cohesive. Like there are several definitions of SP, there are also multiple specifications of its dimensions. Hwang and Park (2007) suggested three dimensions of SP as co-presence, mutual awareness and connectedness; Tu (2000) defined the dimensions as social context, online communication and interactivity. He also

acknowledged privacy as a critical factor for SP in CMC with links to self-disclosure and risk-taking behaviour. He argued that:

When one perceives an online learning environment to be less private, or they are unable to maintain their privacy online, they would naturally be less interactive in his/her learning process (Chih-Hsiung Tu, 2002, p. 294).

Not much research has been carried out on two main social psychological concepts of SP grounded in face-to-face interaction: intimacy and immediacy. Intimacy is related to amount of eye-contact, physical proximity, topic of conversation and smiling (Argyle & Dean, 1965) and immediacy is defined as "communicative behaviors which enhance closeness to another" (Mehrabian, 1969, p. 203). Immediacy cues (e.g. eye-contact, physical proximity, smiling) are similar to intimacy cues. While intimacy research is more concerned with physical distance, immediacy is understood as the psychological distance between two people. In this study, I use both terms interchangeably. In educational research, verbal (e.g. humour, inclusive pronouns, encouraging participation and providing feedback) and nonverbal (e.g. gestures, facial expressions, touching, smiling, meaningful posture and intonation) teacher immediacy behaviours are believed to reduce physical and/or psychological distance between the teacher and the learner and thus positively influence learner participation and attitudes (Bozkaya, 2008). Responsiveness (empathy, friendliness and warmth) increases positive affect towards the teacher (Wanzer & McCroskey, 1998). Positive affect communicated via teacher immediacy behaviour is believed to be reciprocated by the learners, according to speech accommodation theory which argues that people adjust to each other's communication style in order to gain approval and achieve positive social identity (Richmond & McCroskey, 2000). Some immediacy cues may also communicate dominance in interpersonal relationships, such as "direct eye contact, expressive faces, eyes, and voices; vocal loudness and rapid tempo; dynamic and animated gestures; highly immediate or nonimmediate distance, body orientation, and lean; and hyper-relaxation" (Burgoon & Dunbar, 2000, p. 105).

2.4.1 Social presence within a community of inquiry

Social presence is part of the educational experience model of community of Inquiry developed by Garrison, Anderson and Archer (2000). The model consists of cognitive presence, social presence and teaching presence (Figure 1).

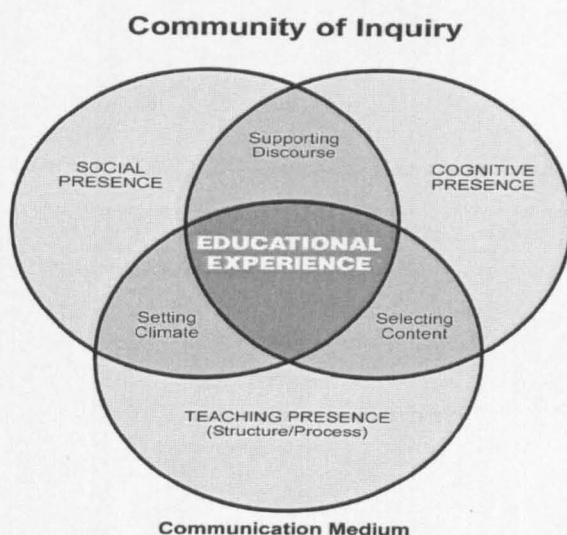


Figure 1 Community of Inquiry by Garrison et al. (2000)

Garrison et al. (2000, p. 88) state that "a worthwhile educational experience is embedded within a community of inquiry" and that "in a true community of inquiry, the tone of the messages is questioning but engaging, expressive but responsive, sceptical but respectful, and challenging but supportive" (p. 96). Within this framework, while cognitive presence is the core element of successful learning, social presence supports critical thinking through meeting the social and affective needs. It provides indirect support for cognitive presence. However, it is accepted as a direct facilitator when sustaining interaction throughout a course is of significant importance, for instance in the case of distance education.

The third dimension in the model, that is, teaching presence, includes designing, supporting and directing cognitive and social procedures. The dedicated website of the

theory (<http://communitiesofinquiry.com>) provides more detailed description of the model. Here I focus only on social presence.

Rourke et al. (1999) developed a content analysis framework for the analysis of learner group interactions via online discussion boards in order to support their theory with empirical data. The template consists of 15 equally-weighted indicators grouped under three categories (Table 1).

Table 1 Social presence indicators by Rourke et al. (1999)

Affective	Interactive	Cohesive
Expression of emotions	Continuing a thread	Vocatives
Use of humour	Quoting from others' messages	Addresses or refers to the group using inclusive pronouns
Self-disclosure	Referring explicitly to others' messages	Phatics, salutations
	Asking questions	
	Complimenting, expressing appreciation	
	Expressing agreement	

This initial template has been mainly criticised for the small amount of data obtained from two short online courses (13 week) via FirstClass® and WebCT® on which the template was tested. The coded data were selected from the fifth week of the first course (14 participants, 90 messages) and the sixth week from the second course (17 participants, 44 messages). The template was subsequently adopted and revised by other researchers. For example, Swan's (2002) coding template included three main dimensions but slightly different indicators (Table 2).

Table 2 Swan's (2002) adaptation of SP template

Affective	Interactive	Cohesive
Paralanguage	Greetings and salutations	Acknowledgement
Emotion	Vocatives	Agreement/disagreement
Value	Group reference	Approval
Humour	Social sharing	Invitation
Self-disclosure	Course reflection	Personal advice

Na Ubon (2005) made further adaptations and combined the two templates. Several other studies used either the original or adapted templates in several other contexts. For example, Hughes, Ventura and Dandon (2007) adapted the template for Asynchronous CMC (ACMC), King and Ellis (2009) compared text and voice based ACMC and Weinell and Hu (2007) used the template to analyse synchronous and asynchronous CMC contexts. In a small scale study at the Open University, I also used the template to analyse text-based SCMC discussions between English Language teachers and native speakers of English (Satar, 2007). Certain indicators of the template were challenging to implement in FL and SCMC setting (e.g. self-disclosure, emotions, continuing a thread). Qualitative analysis of the interactions also highlighted the significance of other elements of interaction (e.g. peer status, empathy, discourse markers and politeness).

The SP template has also been criticised for the equal weighting of indicators, assuming, for example, the effect of an instance coded as salutations equals that of humour. Moreover, Kim (2007) further argued that the template did not present an accurate picture of SP. Given such criticisms and the difficulty of conducting content analysis of interactions, developers of the community of inquiry framework have followed an alternative line of research in SP via questionnaires (Garrison et al., 2008) to enable large scale studies, validation of the template and investigation of the relationship between SP and learning processes (Garrison, Anderson, & Archer, 2010). Previous studies which

used questionnaires to measure SP include, but are not limited to, Biocca et al. (2003), Bozkaya (2008), Gunawardena and Zittle (1997), Lin (2004), Mykota and Duncan (2007), Richardson and Swan (2003), Short et al. (1976), Swan and Shih (2005), Yamada and Akahori (2007).

Several studies reported the positive influence of SP in the learning environment, such as positive correlations between SP, perceived overall learning and satisfaction in distance education (Gunawardena & Zittle, 1997; Richardson & Swan, 2003). For language learning, White (2003, p. 59) stressed the role of SP "to support interaction and the social and affective dimensions of learning and to maintain engagement between those present" and Donaldson and Kötter asserted the significance of SP in creating a "far more effective and enjoyable" environment (1999, p. 543).

2.4.2 Social presence, DVC and FL

In the context of distance language learning, White (2003, p. 61) reported studies by Maija Tammelin (1998, 1999) and quoted one of the research participants on the ability to see others and the relevant feeling of closeness and connection:

If you never see what the others really look like, it somehow makes it all much more distant and so there will not be the same kind of connection (Tammelin, 1998, p. 227).

Most SP research has focused on its development within so-called lean media, that is, text-based CMC, and few studies have explored the influence of being able to see others. Some earlier studies were conducted by Bondareva and his colleagues (2004; 2006). Focusing on the impact of eye-contact, Bondareva and Bouwhuis (2004) compared two traditional videoconferencing systems (VC), one with a slight adaptation of the set-up to allow direct eye-contact. 13 pairs, who already knew each other, participated in the experiments to complete two tasks (cognitive and social) for 40 minutes each. Their

interactions were recorded and SP was measured by coding participant behaviours, namely facial expressions, head and body movements, gestures, eye-contact, vocal cues, fun (laughter and joking) and turn-taking behaviour. T-test comparison of the results indicated significant differences in SP in favour of the eye-contact VC set-up group. Participants' comments also indicated that participants who used the traditional VC felt discomfort due to the discrepancy between looking at the camera to establish eye-contact and looking at the screen to see the reactions of their interlocutors. Participants who used the direct eye-contact VC set-up reported that "the communication was very natural and similar to the real life. ... they did not feel as if they were in different rooms" (p. 8). The second study involved three experimental conditions with the addition of a face-to-face set-up (Bondareva et al., 2006) and initial analysis of 6 pairs (within a total of 30) indicated that there was no significant difference between the direct eye-contact VC set-up and face-to-face condition, confirming the capacity of the new set-up to provide enhanced feelings of SP. The findings of these studies are significant in manifesting the importance of eye-contact for SP in VC settings and the discomfort perceived due to lack of it. However, a drawback of these studies is to regard SP essentially as a quality of the media and ignore the influence of the interaction and interpersonal relationship. Like traditional VC, desktop VC (DVC) does not provide direct eye-contact. Moreover, DVC does not transmit images in actual size.

A study by Hills (2005) compared two DVC contexts for their capacity to project social presence: a 2D DVC environment with slide share, and a 3D DVC environment where the participants were presented around a virtual table with their actual physical movements reflected in the virtual room. In 2D DVC, participants had a fixed view of the slide show and the video streams, whereas in 3D DVC, their perspectives changed as they moved around the virtual world. Participants, in pairs, completed a decision making task..

Questionnaires, adapted from Short *et al.* (1976) and others, measured SP and communication quality. The results indicated that 3D DVC, which was considered less

artificial, supported significantly more SP. However, results regarding communication quality were not conclusive. The items involved direct address, interruption, turn-taking, body language, topic management, pauses, request compliance, interpersonal understanding, mutual awareness, satisfaction and interpersonal attraction. Hills' findings confirm that SP as a quality of the medium could be enhanced as the media resembles face-to-face interaction more. Yet media affordances cannot account for the communication quality. The latter reflects SP as a quality of the participants and their skills in maintaining interpersonal relationships.

Comparing two learning environments, as opposed to media, Bozkaya (2008) compared teacher immediacy behaviours and SP as perceived by on-site and distance learners on an introduction to economics course. The latter course was run synchronously via DVC and both courses were taught by the same teacher. An instrument combining three scales (verbal immediacy, nonverbal immediacy and SP) was administered to 66 students in distance and face-to-face education. Covariance analysis of questionnaires suggested that both verbal and nonverbal immediacy behaviours were slightly fewer in distance education via DVC. In terms of SP, learners also perceived less SP in the distance mode. When the course type was controlled for, the findings indicated positive correlation between verbal and nonverbal immediacy behaviours and SP. Bozkaya's conclusions are important in focusing on the skills of the teacher (human agency) rather than the quality of the media in fostering immediacy and SP.

Interactions in all these studies, which investigated SP in various VC and DVC settings, were conducted in the participants' native language. SP has also been a focus of interesting research in FL settings.

Arnold and Ducate (2006) analysed APMC interactions of FL teacher trainees (without the presence of tutors) in groups of four or five through the lens of the community of inquiry

framework (Garrison et al., 2000) via content analysis and a 12 item questionnaire. Two universities collaborated in developing a methodology course for future FL teaching assistants. The interactions among 13 native speakers (NSs) and 10 non-native speakers (NNSs) were carried out in English. Five bulletin board discussions were completed reflecting on class material and discussing practical applications, resulting in a total of 27 group discussions. Participant perspectives indicated that learners felt a sense of community, whose extent varied across groups. The content analysis results revealed that social activity outweighed cognitive density, perhaps because tutors were not present in the discussions. The participants' contribution was graded based on a rubric including theoretical knowledge, connecting theory to individual experiences, interactivity and active contribution. Emotional indicators were observed least in the discussion, which the authors interpret as a consequence of the evaluation rubric which perhaps discouraged off-task activity. Plenty of interactive and cohesive indicators marked the establishment of a community to support cognitive activity. Although the interactions were between NSs and NNSs, the authors did not analyse whether there were qualitative or quantitative differences between them as regards cognitive and social presence. Although participants in different groups reported varying degrees of connection to other members, the reasons were not explored as interactions were not analysed in relation to different learner groups.

Lomicka and Lord (2007) also studied FL teacher trainees' online interactions. 14 participants, approximately two-thirds of them NNSs of English, were asked to reflect on their experiences in their classrooms each week during the four-month academic semester. The participants kept reflective journals in English, either individually, in e-mail pairs or in group discussion. Findings indicated that the learners reflecting on their experiences on a group discussion board presented the highest density of affective indicators. While learners interacting via e-mail expressed vulnerability and emotion more, learners interacting via the discussion board displayed more self-constructive comments and emphasis in capital letters. In terms of interactivity, e-mail pairs displayed slightly

higher density than group discussants, indicators being in relation to interpersonal support and mutual awareness. On cohesive indicators, inclusive pronouns were intensively used by e-mail discussants and vocatives by group discussants. The authors concluded that “the expression of feeling, vulnerability, self-constructive comments, complements, encouragement, asking questions, advice/opinion, agreement, salutations, and the use of names” (p. 223-224) were more frequent across all groups than other indicators of SP. The findings of this attempt at distinguishing more significant indicators of SP underline the influence of several variables, such as interactivity allowed by the media, group dynamics and number of participants. However, like Arnold and Ducate (2006), they neither compared the establishment of SP between NSs and NNSs, nor explored any influence of FL on how participants built their SP. This was perhaps because, in both studies, the nonnative speaker participants were defined as highly proficient speakers of FL.

The differences between NS and NNS participants was precisely what Yildiz (2009) aimed to investigate. She examined discussion board interactions of students enrolled in two 15-week graduate level courses in theory and applications of language and culture.

Participation in the forum accounted for 50% of students' course grades. Yildiz specifically analysed the interactions of 5 NNSs over 2 weeks and conducted face-to-face and e-mail interviews with these 5 cases. Her findings indicated that all participants initially found it hard to establish the others as real and looked at their pictures to have a sense of who they were. Reflecting on the difficulties in FL, one participant stated she was less worried about her mistakes when writing to a NS friend than posting comments on the forum. Another NNS participant stated his high perception of SP of a native speaker, because the latter frequently enquired about and appraised NNS participants' culture. Two participants also argued that their apprehension of speaking to NSs in the classroom disappeared in the discussion forum. Reduced social cues had a positive influence on this feeling as one of the participants stated that “that she did not feel anxious while interacting with them

because she did not see them and feel their eyes on her" (p. 55). However, NNSs perceived non-response to their contributions as ignorance (especially due to absence of nonverbal feedback) and direct questions as impolite (due to unavailability of intonation or facial expressions). In conclusion, her findings indicated the importance of nonverbal elements in establishing SP, which could be both an advantage and a challenge for participation using FL.

Batstone, Stickler, Duensing and Heins (2007) conducted the only study that analysed learner and tutor interaction using Rourke *et al.*'s (1999) SP template. They compared a face-to-face and distance FL tutorial (conducted in audio-graphic conferencing) investigating whether "online teaching and learning [can] provide for the same quality of interaction as face-to-face teaching and learning". They concluded that interactive and cohesive domains were observed in all tutorials, despite variation in the affective domain in relation to the tasks assigned, tutors' style and the learners. They identified instances of self-disclosure and surmised that "the task type can contribute strongly". They pointed out the investigation of "perceptions of social presence" from the interlocutors and the "relationship of social presence to student outcomes" as future routes for research. Their conclusions also highlighted the need for better analytical schemes of social presence in synchronous spoken conferences.

Yamada and Akahori (2007) compared four SCMC modes: text-based chat with and without interlocutors' image, video conferencing, and audio conferencing. Their university-level participants had low to intermediate proficiency in English but with high IT skills. Learners were paired with unfamiliar partners for a 15 minute decision making task. Questionnaires were used to investigate differences among these four modes regarding social presence, productive performance and consciousness of learning objectives in relation to perceived presence of the interlocutor and perceived consciousness of second language communication. Results indicated that SP facilitated second language

communication, but could inhibit consciousness of learning objectives. On the different effects of text, voice and video, “interlocutor’s image was found to have been most effective in promoting consciousness of presence” (p. 61) and voice was found to reinforce image. Participants also reported that when their partner’s image was visible they felt more comfortable in communicating, because they “can see the partner’s personality and non-verbal behaviors” (p. 61). When the partner’s image was not present, participants reported that they were more comfortable and relaxed when using text-chat compared to audio communication via audioconferencing. Yamada and Akahori concluded that

It is essential to understand the features of each medium with respect to second language communication and make effective use of them, such as blending text-chat and video conferencing; it is also important to take into consideration the learner’s language proficiency, learning objectives, computer literacy, and computer environment (p. 62).

In a similarly designed subsequent study, Yamada (2009) compared the four SCMC modes exploring the relationship between SP and communication output. Through questionnaires and analysis of learner interaction outputs, the study illustrated the use of fillers as social cues in audio that help interaction. The addition of video was observed to motivate the participants to communicate more, especially via visible behaviours of nodding and laughter. While verbal immediacy facilitated communication both in text-chat and videoconferencing, the findings also confirmed that “non-verbal behavior has a strong power of not only immediacy but also negative feedback which may lead to effective learning” (p. 9). Moreover, text-chat displayed fewer grammatical errors, confirming results of previous studies that it provides enough time for language learners to focus on language. As learners were observed to self-correct their mistakes while writing in text-chat, Yamada argued that text-chat increased learners’ consciousness of grammatical accuracy. Learners’ comments also suggested that they preferred to see the video image

of their interlocutor when they communicated in audio. Other learner comments also underlined the importance of visual cues in turn-taking, willingness to communicate and increased SP. Finally, comparing the natural feel of communication and higher SP in videoconferencing and grammatical focus in text-chat, and that SCMC does not always increase output, Yamada suggests further research should focus on the relationship between SP and learning performance. Despite insightful findings, the study's quantitative design and experimental setting mean that findings may reflect the specific context, and further research is required.

2.5 Concluding remarks on literature review

As new modes of computer mediated communication become accessible, such as desktop videoconferencing (DVC), the need to extend research to include these modes of CMC for foreign language learning purposes also increases. Although there is quite a lot of research on the effects of ALCMC and SCMC, many studies are limited to written communication only, and research in audio and especially video communication remains insufficient. In this chapter, I have demonstrated social presence (SP) as a crucial element for language learning in mediated contexts. Most research investigating SP is conducted in text-based environments, using quantitative approaches from the researcher's perspective. Especially in language learning research, the role and significance of SP is little acknowledged. There is a significant need for research to foster understanding of foreign language learners' multimodal practices in mediated communications technologies as well as their experience, establishment and maintenance of SP to sustain rewarding collaboration.

Chapter 3 Methodology

It is through my body that I understand other people. (Merleau-Ponty, 1962, p. 186)

... knowledge obtained by natural science is – like all other knowledge – a representation of the ‘real world’, influenced by what scientists choose to observe, how they interpret what they find and, crucially, the stories they tell about what they have observed and found. (Stainton-Rogers, 2006, p. 80)

Given the background I presented on language learning and teaching, research in CMC and multimodal communication in the literature review above, in this chapter I present the methodological underpinnings of this study in my exploration of how social presence is experienced via desktop videoconferencing by learners of a foreign language and how it is manifested in learner interactions.

3.1 Introductory remarks on methodology

Research design is “the entire process of research from conceptualizing a problem to writing research questions, and on to data collection, analysis, interpretation, and report writing” (Creswell, 2007, p. 5). Denzin and Lincoln (2005a, p. 376) state five basic components that would determine research design decisions. These are related to the paradigm, rationale, participants, methodological assumptions, and research methods and techniques. Moreover, as van Manen (1997, p. 1) put it “[t]he questions themselves and the way one understands the questions are the important starting points”. Methodology is “a creative approach to understanding, using whatever approaches are responsive to particular questions and subject matter” (Laverty, 2003, p. 16). In addition to research questions, feasibility is also central in methodological decisions, which means both the

feasibility of the project in principle and “the constraints of time and resources” (Clark & Causer, 1991, p. 170).

Variety exists in the use and definition of terms such as research design, research tradition, methodology, methods, techniques, and procedures. For example, while Creswell (2007) classifies ethnography as a method, for Richards (2003) ethnography represents a research tradition. Similarly, for Richards (2003, pp. 12-13) a method is a “means of gathering, analysing and interpreting data using generally recognised *procedures*” (researcher’s emphasis). However, van Manen (1997, pp. 27-28) describes techniques as “theoretical and practical *procedures* to work out a certain research method” (my emphasis). In this thesis, I use the following terminology and take the following positions:

- Philosophy: The philosophical framework is composed of ontological (subtle realist), epistemological (interpretivist), axiological (reflexive), rhetorical (personal voice) and methodological assumptions (mainly exploratory).
- Paradigm: A paradigm is “representative of a set of basic beliefs” (Richards, 2003, p. 12). These beliefs relate to a particular view on each of the philosophical assumptions. (towards constructivist end of the positivist–constructivist continuum)
- Approach (Tradition) is a distinct set of methods in collecting and analysing data (Maxwell, 2005). (qualitative and computer mediated discourse analysis)
- Method is “a certain mode of inquiry” (van Manen, 1997, pp. 27-28). (Case Study)
- Techniques are “theoretical and practical procedures to work out a certain research method” (van Manen, 1997, pp. 27-28). (interviews, written account via open and closed questionnaires, desktop video conferencing (DVC) recordings)
- Procedures are “rules and routines related to research” (van Manen, 1997, pp. 27-28) (the pilot study, phase 1 (two cases), and phase 2 (three cases))

Overall, I use an eclectic approach in my acceptance of multiple perspectives and/or realities of the participants, as well as providing my own perspective as a researcher. I will deal with each of the above positions in detail in the remainder of this chapter.

3.2 Philosophical stance

Richards (2003, p. 30) urges the researcher to understand and “dig deeper into the roots” to avoid “methodological mistakes”. It is also important to understand what one is doing and why and the assumptions and judgements one is making (Stainton-Rogers, 2006, p. 76). This understanding is crucial as it determines the kinds of acceptable evidence and legitimacy of the findings.

Creswell (2007, p. 30) explains the effect of philosophical assumptions on the research design as follows:

...basic philosophical assumptions relate to ontology, epistemology, axiology, rhetoric, and methodology as central features of all qualitative studies.

Researchers take a philosophical stance on each of these assumptions when they decide to undertake a qualitative study. They also bring to the research their paradigms or worldviews, and those frequently used by qualitative researchers consist of post-positivist, constructivist, advocacy/participatory, and pragmatist. These worldviews, in turn, narrow to interpretive or theoretical stances taken by the researcher. These interpretive stances shape the individuals studied; the types of questions and problems examined; the approaches to data collection; data analysis, writing, and evaluation; and the use of the information to change society or add to social justice.

The main philosophical assumptions behind this study will be presented briefly in turn.

3.2.1 *Ontological assumptions*

What is the nature of reality?

Ontology is a branch of philosophy which studies the nature of what exists, that is, 'the nature of reality' (Blaikie, 2007, p. 13; Richards, 2003, p. 34). Ontological assumptions are usually explained via two opposing positions or mutually exclusive categories. Again, the terminology for these two categories is not consistent in the literature; they are labelled, for example, as realist and idealist by Blaikie (2007), objectivism and constructionism by Bryman (2004), positivist and constructionist by Stainton-Rogers (2006), and realist and relativist by Richards (2003).

At one extreme, the world is accepted "as objectively 'out there', real and completely separate from human meaning-making" (Stainton-Rogers, 2006, p. 79). It is "external to social actors" (Bryman, 2004, p. 16) and "can be studied and understood in order to identify the laws and rules that govern behaviour" (Richards, 2003, p. 34). As Richards (2003, p. 35) puts it:

... the tree outside my window is the physical essence of truthness, the fact of which exists independently of any mind to apprehend it (and therefore in the absence of any concept of fact).

At the other extreme is the idealist/relativist position, which rejects the idea of a single reality outside people's interpretation. The external world is seen as "constructions built up from the perceptions and actions of social actors" and is "in a constant state of revision" (Bryman, 2004, pp. 16-17). The relativist position "asserts that the only world we can study is a semiotic world of meanings, represented in the signs and symbols that people use to think and communicate, language being the prime example". (Stainton-Rogers, 2006, p. 79).

Between these two extremes, there are other ontological positions such as naïve realist, shallow realist, depth realist and so on as explained by Blaikie (2007). I take a subtle realist position as described by Hammersley (1992, p. 52).

This subtle realism retains from naïve realism the idea that research investigates independent, knowable phenomena. But it breaks with it in denying that we have direct access to those phenomena, in accepting that we must always rely on cultural assumptions ... Perhaps most important of all, subtle realism is distinct ... in its rejection of the notion that knowledge must be defined as beliefs whose validity is known with certainty.

Hence, I reject the existence of an objective reality independent of our meaning-making processes. However, I accept the 'existence of an external social reality' constructed by its members and investigated via the researcher's relationship with it. I also believe that this external social reality could be perceived and interpreted in slightly different ways by its members based on various cultural assumptions that exist in the social system.

3.2.2 Epistemological assumptions

What is the relationship between the researcher and that being researched?

Epistemology "concerns the questions of what is (or should be) regarded as acceptable knowledge in a discipline" (Bryman, 2004, p. 11). Similar to ontological assumptions, epistemological assumptions are also generally explained in terms of two opposing views. These two positions are also labelled differently in the literature. These two positions are (1) positivist (Bassey, 1999; Bryman, 2004; Stainton-Rogers, 2006), objectivist (Richards, 2003), distant (Creswell, 2007) or empiricism (Blaikie, 2007), (2) interpretivist (Bassey, 1999; Bryman, 2004), subjectivist (Richards, 2003), participant (Creswell, 2007), constructionist (Stainton-Rogers, 2006) or constructionism (Blaikie, 2007).

Empiricism or the positivist position accepts the existence of a reality 'out there' (Bassey, 1999, p. 42) and "advocates the application of the methods of the natural sciences" to the investigation of social sciences (Bryman, 2004, p. 11). Knowledge is gained through observation "in a systematic and objective manner" and "there is a straightforward one-to-one relationship between things and events in the outside world and people's knowledge of them" (Blaikie, 2007, p. 18; Stainton-Rogers, 2006, p. 80). Hence, the researcher tries to be as distant as possible to sustain this objective position. Still, it is important to note that today few researchers believe that it is possible to achieve total objectivity "since human perception and understanding are fallible" (Stainton-Rogers, 2006, p. 80).

At the other extreme end are the researchers who hold an interpretivist/constructionist position and who value the way different people perceive and construct the world "in ways which are often similar but not necessarily the same" (Bassey, 1999, p. 43). The approach to studying social events includes an investigation of subjective meanings of the participants and respect for differences between people. Therefore, knowledge is 'constructed not discovered', is 'multiple not single' and cannot "ever be simply '*discovered*'" (Stainton-Rogers, 2006, p. 80). To go beyond simple discovery, the researcher has a participant relationship and "becomes an insider" (Creswell, 2007, pp. 17-18). Hence, the researcher 'plays an active role' in the creation of meaning and knowledge (Blaikie, 2007, p. 19).

Here I take an interpretivist/constructivist epistemological stance. In line with the subtle-realist position I take, I believe that the collectively constructed external social reality is only partially accessible via our observations of the phenomena and our relationships with its members. I accept that potential interpretations of the same social phenomena are equally valuable. From these equally valuable perspectives, based on the evidence provided, some claims are more plausible than others. As a researcher I aim to

investigate these possible interpretations and perspectives and thus provide the most plausible explanation(s) relying on the cultural assumptions.

3.2.3 Axiological assumptions

What is the role of values in the research?

The third set of assumptions linked to methodology is the axiological assumptions. These are “concerned with truth or worth” (Richards, 2003, p. 36). These will be discussed around the issues of objectivity, subjectivity and reflexivity.

Traditionally researchers have been assumed to maintain an impersonal stance towards the object of their study, ensure rigour via distance and non-involvement which required objective procedures where “subjectivity was a contaminant” (Etherington, 2004, p. 25). The researcher’s beliefs, assumptions, background and identity have been accepted as ‘bias’ which should be eliminated (Maxwell, 2005, p. 37).

However, qualitative approaches to research, especially social and educational research, “stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry” (Denzin & Lincoln, 2005b, p. 10). Maxwell (2005, p. 38) argued that objectivity, in its traditional sense, deprives the researcher of “a major source of insights, hypotheses, and validity checks”.

This value-laden nature is sometimes embraced to such an extent that objectivity is seen as virtually impossible to achieve (Merleau-Ponty, 1962). However, the rejection of pure objectivity in qualitative social science research should not be identified with the rejection of rigour. As van Manen (1997, p. 16) asserted, for those who are suspicious of objectivity and rigour, “there is no basis upon which human beings can come to common

understandings". According to Etherington (2004) rigour could be attained via 'reflexivity'. She also underscores awareness of personal, social and cultural contexts in order to be able to better understand "the ways we interpret our world" (Etherington, 2004, p. 19). Similarly, Hammersley and Atkinson (1995, 2007) situate the researcher in the social world they study and argue that:

Indeed, rather than engaging in futile attempts to eliminate the effects of the researcher completely, we should set about understanding them (Hammersley & Atkinson, 1995, p. 18).

In the current study I take a reflexive stance. I acknowledge the national (Turkish), linguistic (Turkish as native language and English as a foreign language), educational (English language teaching degree), cultural (Turkish culture in general), social (including gender relations and conversational styles) and religious (Muslim) background I share with the participants. In my analysis and interpretation of the data, I draw on these insights as necessary.

Throughout the research, I kept a research journal in an attempt to explore my understanding of social presence and how my interactions with the participants in DVC might influence the way they project and develop their own. For example, some participants waved at each other at the end of the sessions which I also did in my interactions with them. Likewise, some participants expressed that they perceived my 'smiles' very warm and positive, which might have influenced how much they smiled to their DVC partners.

I also acknowledge the influence of my presence and relationship with the participants as a researcher. Throughout the research process, I kept a record of mobile text messages, notes on phone calls, e-mail exchanges and personal text/video SCMC interactions I had with the participants in an attempt to observe their understanding of the research context

and their motives for participation which I document in the analysis. For example, some were very enthusiastic to help me in my studies and tried to do their best. I was especially cautious of my readings of participants' comments and tried to consider implications of any influence of their willingness to be a 'good research participant'.

Although my aim was to explore the participants' subjective understandings of social presence in the current context, in the following sections of this chapter I document systematic data collection and analysis techniques in detail to achieve rigour.

3.2.4 Rhetorical assumptions

What is the language of research?

Guba and Lincoln (2005, p. 209) quote from Rosanna Hertz that voice is

a struggle to figure out how to present the author's self while simultaneously writing the respondents' accounts and representing their selves. Voice has multiple dimensions: First, there is the voice of the author. Second, there is the presentation of the voices of one's respondents within the text. A third dimension appears when the self is the subject of the inquiry. (1997: xi-xii)

The first two dimensions of voice will be dealt with in this section. The third dimension of voice is related to approaches such as auto-ethnography, which is beyond this research and thus not discussed further.

The first dimension is the researcher's voice. As Hammersley and Atkinson (1995, p. 253) put it "[t]he analysis of social life cannot be divorced from how we write about it". The researcher's self and voice becomes visible through the stylistic choices between the use of personal/impersonal pronouns or passive/active voice. In line with my reflexive position, I prefer to use the first person pronoun and the active voice where possible. My voice and

'self' also becomes apparent via my insights and interpretations which are unavoidably linked to my own research and educational background as well as my culture and identity. I do not see these as handicaps or 'biases' but as informed insights that enrich analysis and interpretation, and thus, the trustworthiness of the study.

The second dimension of rhetorical assumptions is the participants' voice. Guba and Lincoln (2005, p. 209) state that "letting research participants speak for themselves" is crucial. However, van Manen (1997, p. 167) warns qualitative researchers that this 'letting participants speak for themselves' should not be limited to organising and presenting endless segments of transcripts, but the 'interpretive and narrative task' of the research should be foregrounded. Therefore, I use examples from data as evidence to support the claims and interpretations being made. I select exemplary extracts based on their representativeness (or their uniqueness where relevant), conciseness and expressiveness. I provide detailed explanation on the selection of extracts in the analysis techniques of this chapter and in relevant sections throughout the analysis.

3.2.5 Methodological assumptions

What is the process of research?

Methodological assumptions focus "on the best means for acquiring knowledge about the world" (Denzin & Lincoln, 2005a, p. 183). Two main choices relate to the logic of enquiry and the overall purpose of research.

Logics of enquiry, that is, "ways of knowing" (Stainton-Rogers, 2006, p. 75) are procedures for generating knowledge. Blaikie (2007, p. 8) reports four logics of enquiry; inductive, deductive, retroductive and abductive, the last of which is appropriate solely in the social sciences. He argues that retroductive and abductive logics of enquiry are cyclic or spiral (Blaikie, 2007, p. 57). Retroductive strategy starts from an observed regularity

and aims to discover underlying mechanism(s) to provide the best explanation in that context. It draws on “a theoretical model” (Blaikie, 2007, p. 84). Abductive logic of enquiry, on the other hand, aims to describe and understand social life within the motives, meanings and concepts of the social actors to develop and elaborate theory. While retroduction relies more on an etic perspective, abduction draws on an emic perspective. Richards (2003) states that emic refers to an insider’s perspective and etic to an outsider’s; the former of which sometimes implies a ‘better’ view, when in fact both are potentially important.

I value both perspectives equally. I draw on the theoretical model (social presence) in establishing the research design and data collection tools. However, I am interested in the participants’ interpretation and perspectives on the theory and the mechanisms that constitute the theory within the particular context. I use open-ended interviews and written comments to reveal this emic perspective. Furthermore, I combine these again with an etic perspective, that is, relevant theoretical models as well as my and my colleagues’ informed intuition to analyse mechanisms of social presence in video recordings of participant interactions. Thus, both perspectives, that is, emic and etic, inform each other and are used to invoke as many tenable interpretations of the data as possible in an exploratory fashion.

Using the case study method, the current study is exploratory in its aim to discover the phenomenon of social presence in a web-based multimodal environment established in a foreign language. It is data-driven and focuses on participant perspectives in order to modify and adapt the current social presence framework to multimodal online environments. It also has a descriptive nature in illustrating the unique context of each case. Moreover, the outcome of the study (the framework) can lead to explanatory studies looking for cause-effect relationships.

3.3 *Research paradigm*

A paradigm or worldview “is a basic set of beliefs” (Creswell, 2007; Guba, 1990; K. Richards, 2003) “that guides action” (Guba, 1990, p. 17) and that “deals with ultimates or first principles” (Richards, 2003, p. 33). The paradigms are considered as intersecting containers (circles) with certain conjunctive and/or distinguishing philosophies. Two main assumptions of which are ontological and epistemological (Blaikie, 2007; Maxwell, 2005; Richards, 2003).

Miscellaneous and inconsistent terminology is not rare to describe the paradigms (Blaikie, 2007; Creswell, 2007; Denzin & Lincoln, 2005b; Hammersley & Atkinson, 1995). While Blaikie (2007) reviews ten paradigms, Hammersley and Atkinson (1995) include three: positivism, naturalism and realism. It is, thus, preferable to discuss only the two commonly used paradigms here for clarity and conciseness which are positivism and constructionism/interpretivism. In terms of their ontologies and epistemologies, while positivism assumes a (shallow) realist ontology and empiricist epistemology, constructionism/interpretivism accepts an idealist/relativist ontology with a constructionist epistemology. The present study is closer to the latter tradition.

3.4 *Research approach*

While research paradigm connotes to beliefs and assumptions, research approach or tradition involves a distinct set of methods in collecting and analysing data (Maxwell, 2005). The most common distinction is perhaps between the qualitative and quantitative approaches (e.g., Bryman, 2004; Silverman, 2006). In language learning and teaching research Benson, Chik, Gao, Huang, and Wang (2009) found that 22% (477) of the total number of articles published were qualitative between 1997-2006. They concluded that qualitative work in our field does not adhere to established traditions and is characterised by methodological eclecticism.

Whilst some researchers agree qualitative and quantitative data could be combined and used in mixed-methods studies, others would argue that they are mutually exclusive as they carry opposing philosophical assumptions in terms of ontology and epistemology (Denzin & Lincoln, 2005b). Hence, the former group of researchers accepts the division between qualitative and quantitative data on the methods level and the latter group of researchers is perhaps legitimate in their argument at the approach level because different approaches, thus paradigms, make different validity claims about the nature of the data. Some researchers, on the other hand, see the issue of whether qualitative and quantitative data are compatible as one of “level of precision” and argue that the decision should be based on the nature of the phenomenon, accuracy of the descriptions, purposes and resources rather than adherence to certain paradigms (Hammersley, 1992, p. 163; Richards, 2003, p. 11).

Other researchers also argue for the compatibility of qualitative and quantitative methods. Creswell (2009, p. 3) sees them on a continuum and claims that “a study tends to be more qualitative than quantitative and vice versa”. Silverman (2006, p. 301) and Allan (1991, p. 185) propose incorporating quantitative data in qualitative research where appropriate arguing for stronger credibility.

This study subscribes to the qualitative tradition at the approach level and the underpinning philosophical assumptions because of its emphasis on exploration. However, at the methods level, data collection and analysis include some quantitative data where relevant for the sake of precision and credibility. I also acknowledge several criticisms reported and counter-argued by qualitative researchers. For example, Denzin and Lincoln (2005b) and Richards (2003) report that qualitative research is argued to lack rigour and objectivity. Richards, in turn, argues that “qualitative inquiry is anything but a soft option – it demands rigour, precision, systematicity and careful attention to detail” (2003, p. 6). Moreover, Allan (1991) reports that the qualitative approach is accused of

being impressionistic and non-verifiable. He concludes that systematic iteration of data can ensure “that the analysis generated is more than just impressionistic” (1991, p. 181). Allan (1991) proposes reflexivity and systematic data collection and analysis procedures to achieve verifiability as well as a detailed articulation of these in the research report.

This research also follows the Computer Mediated Discourse Analysis (CMDA) approach with an emphasis on qualitative methods in investigating online interaction. According to Herring (2004), although CMDA as an approach may involve qualitative or quantitative data analysis, traditionally it has mainly been quantitative making use of content analysis in order to describe features of online interaction. Qualitative research, on the other hand has been limited and particularly guided by the grounded theory approach. She mentions that despite a variety of research that falls under the category of CMDA, most studies investigate text-based communication. This reliance on written communication arises particularly from the challenges inherent in capturing and analysing multimodal data. Methods of language-oriented disciplines, such as linguistics, communication, and rhetoric are also applied in CMDA research (Herring, 2001).

Hence, this research, within the CMDA tradition, makes use of qualitative analysis of interviews to illuminate the qualitative analysis of recorded interaction. In this process, principles of thematic analysis and interactional sociolinguistics are drawn on (section 4.5).

3.5 Research method: case study

Clark and Causer (1991, pp. 171-173) suggest three criteria for choosing between research methods; appropriateness to objectives, single or multiple methods and pragmatics. As Yin (2003) comments, a case study approach is particularly suitable where contextual conditions are highly relevant. Case study is the method chosen for this study because in terms of objectives it aims to achieve participants' understanding of social

presence in a particular context. Moreover, case study allows using multiple techniques of data generation (Gillham, 2000) and collects “*multiple sources of information* (e.g. observations, interviews, audiovisual material, and documents and reports), and reports a case *description* and case-based themes” (Creswell, 2007, p. 73 italics in original).

The case study method “seeks to provide an in-depth understanding of the cases or a comparison of several cases” (Creswell, 2007, p. 74), within a bounded system (Creswell, 2007; Stake, 2005). However, identifying clear boundaries of a case may be problematic, because a case can mean an individual, an institution, or a profession (Creswell, 2007; Gillham, 2000; Stake, 2005). In the present study, each pair taking part in DVC interactions is considered as a bounded system, that is, a case, in that they create their own contexts in which they establish a unique relationship, and project and create their identities.

There are different types of case studies. Academics differentiate between exploratory, explanatory and descriptive case studies as well as intrinsic or instrumental and single or multiple and/or collective case studies (Creswell, 2007; Richards, 2003; Stake, 2005; Yin, 2003). This is an instrumental case study; the aim is not to extensively investigate the interaction within the cases, but to focus on how social presence is constructed and participants’ experiences within the case boundaries. It is also a multiple and/or collective case study because five pairs (cases) participated in the study. Regarding the exploratory nature of the study, multiple cases served to provide heterogeneity and were triangulated in order to reach as many tenable interpretations as possible.

The decision on who to collect data from is crucial. Based on the type of case study Stake (2005, p. 450) suggests that intrinsic cases are usually already identified at the beginning of the research and case selection is required for instrumental and collective cases. Multiple/collective cases are usually selected “to adequately capture the heterogeneity in

the population" so that the attributes are balanced and provide variety (Stake, 2005, p. 451). Alternatively, the cases could be selected "for theory development ... designed to produce as many categories and properties of categories as possible and to relate categories to one another" (Hammersley & Atkinson, 1995, pp. 42-43). Creswell (2007, p. 75) calls this "purposeful maximal sampling". One last option could be to select opportunistic cases that are most accessible (Creswell, 2007, p. 75), that we can spend more time with and which provide highest opportunity to learn (Stake, 2005, p. 451). Stake and Creswell further argue that the opportunities to learn more are often more important than selecting by attributes in collective studies.

Even when one of the above strategies is followed several cases could meet the criteria. Yin (2003, p. 77) advises that when there are multiple suitable cases "the larger the number you study the better". However, Creswell warns that as the number of cases increases, the depth decreases in any single case; hence a typical number of cases for a study is "no more than four or five cases" (2007, p. 76).

For the current study I selected opportunistic cases. I paired up the participants practically in terms of their availability for the sessions and their sequence of contact. Gender was a potential variant for social presence. Although it was not essential, the cases turned out to be two female/female, two male/female and one male/male pairs. The decision to have five cases was both pragmatic and theoretical. Pragmatically, it was challenging to arrange synchronous sessions for more than five pairs. Theoretically, following Creswell's (2007) advice, five pairs was an adequate number that would allow an in-depth analysis of the interactions.

Another important issue that overwrites any of the above criteria was informed consent.

As Oates (Oates, 2006, p. 213) rightly argues;

No significant data should be gathered from people who have not consented, been given clear statement about why the information is going to be collected, or been told how it is going to be used.

Given the intrusive nature of the data collected in this study, informed consent and voluntary participation were a priority. These are further explained under ethics (section 3.6.1). From the volunteers that fitted the criteria, I recruited accessible cases, that is, the ones that would provide more opportunities to learn, were more interested and were willing to spend more time.

One of the main criticisms against the case study method is representativeness or generalisability rooted in the use of a small number of cases (or a single case) and the selection of cases. While the main goal of case studies is not to generalise, but to focus on the particular context (e.g., Creswell, 2007; Stake, 2005; Yin, 2003), Stake (1995, p. 85) mentions naturalistic generalisations where the reader can compare the findings with his/her own experience and Yin (2003) suggests analytic generalisations through comparison among cases within different contexts. Yin (2003) also argues that common conclusions from different cases would yield analytic generalisations for theoretical propositions and not for populations. Two other generalisation types for case studies are fuzzy generalisation (Bassey, 1999, p. 12) and internal generalisability (Maxwell, 2005, p. 115). In the current study, I have no intentions of making a statistical generalisation to populations. The research is based on the immediate contexts of the five cases. I initially provide thick descriptions (Geertz, 1973) of the cases and aim to reveal what is peculiar about them so as to enable readers to draw conclusions about their own contexts and construct naturalistic generalisations. Moreover, I analyse the cases through the lens of social presence theory and provide a cross-case analysis of the themes. Therefore, analytic generalisations for the theory would be plausible.

Another criticism against the case study method is that it is purely descriptive and lacks rigour. Richards (2003, p. 22) warns that “description and detail alone” is not enough and that “the problematic nature of the relationship between case and theory building requires careful negotiation”. In order to ensure credibility, Stake (2005, pp. 443–444) recommends “thoroughly triangulating the descriptions and interpretations, not just in a single step but continuously throughout the period of study”. Therefore, I use multiple sources of data (interviews, actual recordings of online sessions and written accounts) and continuously provide links between the data and interpretations.

3.6 *Ethics and access*

3.6.1 *Ethics*

Ethical approval was gained on 18 November 2008 from the Human Participants and Materials Ethics Committee (HPMEC) of the Open University prior to any contact with the participants. Additional guidelines provided by the British Educational Research Association (BERA), British Association for Applied Linguistics (BAAL), and The ESRC Research Ethics Framework (revised and renamed as Framework for Research Ethics in 2010) were also followed throughout the study. Participants were informed that the data was protected under the Open University Data Protection Act (1998) and would be destroyed in case of withdrawal. Informed consent was a crucial issue for the selection of participants. This was ensured through an information letter (Appendix 1) and a consent form (Appendix 2). These forms included details on the aims of the project, what participation involved, any foreseen harms and benefits, how anonymity and confidentiality would be ensured and what would happen in case of withdrawal.

Any research project involves a degree of intrusion into participants' lives (Maxwell, 2005) and protection of privacy and ensuring confidentiality and anonymity are essential (Hammersley & Atkinson, 1995). Confidentiality mostly becomes an issue when data is

prepared for publication (Rees, 1991), that is, to be used for public consumption (Hammersley & Atkinson, 1995). Current research involved online interactions in pairs via writing, speech and video and the content of interactions involved personal topics. While some participants were online in an internet café, most were in a private space, that is, their bedrooms. Although at the time of the interactions only the two participants in each pair and sometimes the researcher were present, the interactions (text, audio, video) were recorded, thus creating a further issue of privacy and anonymity.

To provide privacy and confidentiality in publication, I have anonymised the names of the participants throughout the thesis as well as the real names of institutions and any personal information that was critical. To preserve the anonymity of the participants, the CD accompanying this thesis, which includes video extracts, is not made available for loan. The consent form clearly asked for participants' agreement on the use of data "for educational or research purposes, including publication". The idea of being in a public space or the data being used for public consumption was possibly the reason why one of the participants kept her headscarf on during the interactions (in the Islamic faith women take off their headscarves in the house without the presence of men except the household). Although she was interacting with another female participant and was online in her house, she kept her headscarf on during the videoconference. She could have either judged the online environment as not private or secure enough or considered the publication of the data.

A second issue in ethics is to weigh up "potential benefits and potential harm" including psychological damage, distress, offence, waste of time, resources, funds, etc. (Oates, 2006, pp. 208-209). There were no harms or benefits for the institutions as participation was voluntary and personal. I stated personal benefits for the students in the information sheet. In order to prevent any harm that might be caused by flaming or offensive language that could occur during the SCMC sessions, I provided a netiquette. The content of the

interactions did not have any potential to cause stress. However, the participants were also made aware that if they were not happy about any of the conversations they could simply log off and/or withdraw. Indeed, during the last session of case 2 (Deniz and Zeynep) the male participant insistently asked for the mobile number of the female participant. It was quite obvious to me that she was not happy about it. I considered interrupting the session; however, the female participant handled the situation well and there was no need for interruption. Still, right after the online session, I called her and apologised for any inconvenience caused. That was the last contact the pair had. After a few weeks when I met online with Deniz (male participant) he sounded upset because Zeynep had stopped all communication with him. I explained to him that their conversations were part of a research project and that she could have assumed that they were not supposed to contact each other once the project was completed. I also added I did not have further contact with her either, which was true except for the interview. I made sure he felt important and respected and not abandoned. In the second phase of the study, I mentioned to the participants that they would have four or five online sessions, depending on the time available, and made sure they understood that none of them were expected to continue the relationship. Although I made every effort to prevent potential stress, I accept that there was some unavoidable intrusion of research into participants' lives. Participants' interactions with me and with other learners perhaps aroused emotions, invoked thoughts and created experiences which may have influenced them in certain ways and which may always stay with them.

Another important issue for ethics is related to the relationship created between the researcher and the participants. Maxwell (2005, p. 84) warns that relationships are fluid and should not be considered as strategies to access data. Accordingly I tried to create trust and rapport throughout and ensured that when participants' involvement came to an end it was not too abrupt "so that the participants do not feel abandoned" (Creswell, 2007, p. 44). After all data collection was complete, I wrote to the participants once again

to thank them for their participation, informed them that I would be analysing and transcribing data in the following stages of my research and asked permission to contact them again if needed. I also mentioned that I would be more than happy to keep in touch on a personal level.

Deception or withholding information may also be necessary (Oates, 2006). Rees (Rees, 1991, p. 146) discusses the inevitability of withholding some information as follows:

It would clearly not be feasible, for instance, for the interviewer to explain the motives behind each question to the respondent: quite apart from anything else, this would render the results worthless.

I did not fully inform participants of the details of the social presence framework as this could have affected the way they would relate to each other or their use of language. Moreover, as some aspects of the analysis emerged during the process (such as gaze and eye-contact), I did not know what I would specifically investigate prior to data collection.

Creswell (2007) and Maxwell (2005) advise the researcher to think about what could be given to participants in return for their time and efforts. In social sciences research “coercion or inducement to participate” is unacceptable, but, reimbursing travel costs or expenses or making small payments to recognise the lost time and inconvenience are considered appropriate (Oates, 2006, p. 215). I did not offer the participants any inducement for participation. At the end of the study, I reimbursed the costs for equipment some participants bought (such as headphones, webcams) as well as connection costs for the ones who had to use an internet café. At the end of face-to-face interviews, I gave them small gifts (e.g. cards, chocolates, calendars, pencils) to acknowledge their participation. Also, during or after the interviews, I treated them to lunch and/or coffee and biscuits as appropriate.

3.6.2 Access

Gaining access to the field involves two dimensions (Ball, 1993). One is to obtain formal permission to conduct the research by negotiating with gatekeepers who control entry to the field. The other involves negotiating with the participants who provide the actual data. The latter requires co-operation and interpersonal trust which is sometimes called social access.

Initially, I sought access to a distance education institution in Turkey as online interactions are crucial in distance language teaching both for the development of speaking skills and for the need to establish social presence. Regarding formal access to the field, I approached the institution via a personal acquaintance. However, as my personal contact had left the institution recently, I phoned the head of department and explained my study, and he recommended making a formal application to the chancellery. I sent in the application, but it was rejected without any specification of the reasons which made it impossible to negotiate changes and resubmit. A possible explanation for the rejection could be the scope of the research at the time. I had submitted the application during the probationary period to allow appropriate time for a pilot study. The research design, then, had a more positivistic and quantitative nature asking for participation of 120 students. Furthermore the approach could have been a problem. I submitted a detailed proposal including data collection tools following the advice by the head of department. However, it would probably have been more practical and productive to submit only a pilot study proposal and negotiate further access as required. Moreover, although the proposal explained the gains for the institution and the learners, these might not have fitted with the institutional targets. Alternatively, the students were possibly over-researched as the language teaching programme was set up for a limited period of time.

Although it was a frustrating rejection, I learnt several lessons. First, it is perhaps best to approach an accessible site through an insider acquaintance. If not, access can be

negotiated in stages, more access requested as required. It might also be a good idea to allow flexibility in the research design to adapt it as required considering the expectations of the research site and/or institution and amount of access allowed.

My second attempt at access was through three lecturers at different universities who were formal or informal acquaintances. During the time between my first and second attempts, the study had developed and adopted its current methodological approach. The lecturers indicated no need for university level formal access, informed their students about the research and provided my contact details. I, then, negotiated participation with the volunteer students who approached me via e-mail or instant messaging. I sent information sheets and consent forms to the volunteers, answered any questions they had, held DVC sessions with the ones who were either unfamiliar with the tool or felt unconfident about using English and arranged further data collection as required.

Chapter 4 Data collection and analysis

Within the theoretical and methodological frameworks presented in the previous chapters, in this chapter I outline the data collection and analysis procedures I conducted in order to explore the experience of social presence in language learner interactions via desktop videoconferencing and the observable features of social presence in these interactions. Specifically, I introduce the research participants, provide details of data collection procedures, and describe data collection instruments and data analysis methods. I provide a summary of these methods in Table 3. In the concluding remarks at the end of the chapter, I discuss the trustworthiness of my study and explain why alternative methods of data collection and analysis were rejected.

Table 3 Summary of data collection and analysis methods

Data collection	Analysis	Purpose
Background questionnaires	Descriptive analysis	To collect factual data on participants' hardware specifications, amount of time spent using CMC tools, their perceived level of FL and their age.
DVC recordings	Multimodal analysis drawing on interactional sociolinguistics and social semiotics	To observe the salient features of the ways in which the participants constructed their social presence and interpreted the other's social presence within their interactions.
Post-task questionnaires	Thematic analysis (open-ended questions) Descriptive analysis	To collect participants' immediate thoughts, feelings and attitudes, to track participants' development of social presence and any memorable events encountered in each

	using tables and graphs (closed questions)	session as well as their perspectives on the tasks, the tool, perceived language development and the native language of their interlocutor.
Interviews	Thematic analysis	To gather participants' accumulated and reflective perspectives on and understanding of social presence based on their overall experience.
Stimulated reflection	Thematic analysis	To access participants' interpretation of the salient features they observed in other people's conversations and of the influence of each mode in their overall perception of social presence.
Final questionnaires	Descriptive analysis using tables and graphs	To elicit participants' perspectives on various potential indicators of SP.

4.1 Research participants

Rather than the terms sample or subjects, I prefer to use *participants* on two grounds.

First, this avoids connotations in relation to generalization from a sample population (Maxwell, 2005). Second, it shows respect to people's human dignity, because the people who provide data for the study give up their time and allow "an intrusion into their 'private space'" (Oates, 2006, p. 201). I considered three issues for participant selection: familiarity, cultural similarity and level of language.

The perception of social presence, as stated by Biocca, Harms and Burgoon (2003, p. 469), depends very much on the "medium, knowledge of the other, content of the communication, environment, and social context". Therefore, in participant selection for

this study, it was crucial that pairs in each case were not previously acquainted and have their first contact via SCMC. The 'medium' was constant for all cases; the interactions took place via the same desktop videoconferencing software. 'Content of the communication' was also constant for all cases as the same tasks were used by all cases and these tasks were all carried out in the target language, that is, English. 'Social context' was the same; all participants were studying the same discipline and were first year undergraduate teacher trainees. There were slight differences in terms of the physical and/or immediate environments. Participants interacted online via their own facilities; some were at home, others were at dormitories or an internet café. Multiplicity of environments and access to technological resources ensured a range of situations for theory development.

The second issue for case selection was language and culture. There may be differences in the development and interpretation of social presence if the native language or a foreign language is used or if learners are from the same culture or from different cultures. Both in terms of theory development and research, I preferred to limit the context to interaction among learners who share the same culture and also the same native and target languages. In line with my own background, I recruited Turkish learners learning English as a foreign language, and this allowed me to have an insider's perspective on the native language and culture and to make more valid and insightful interpretations of the interactions (such as the implications of certain gestures, prosodic features or practices of wearing the headscarf). If other cultures had been involved, without the insights of a co-researcher who is an insider into the other culture, my interpretations might have been biased towards the Turkish way of meaning making. For a PhD thesis, having a co-researcher was not the possible.

The participants' level of foreign language was the third practical consideration. I designed loosely structured open-ended tasks within a socio-cultural perspective to encourage optimum projection of social presence and to provide participants with opportunities to get

to know one another. Hence, participants ideally needed to have sufficient language skills (at intermediate level or above) to complete the tasks. The targeted group of participants had to be university students (18 years of age or above) for ethical reasons, for easier recruitment (my prior experience showed me that parents have concerns about giving consent to participation in online research) and for practicality (time commitments usually restrict participation of adult learners). Although English learners in all university departments were potentially suitable, there is a lot of variance in their language levels, aims and interests. For the current study, I believed first year teacher trainees in an English Language Teaching (ELT) department would be the most suitable group to approach. Having completed the same degree myself, I am aware that the programme focuses on developing language skills during the first year. The students are also intrinsically motivated to develop especially their listening, speaking, and writing skills, often neglected during the last few years of preparation to the university entrance examination which only tests, vocabulary, reading, grammar and translation.

As I explained in section 3.6.2, I approached the participants via their lecturers at ELT departments in three universities in different cities. Two of the universities were in the north of the country (NU1 and NU2 henceforth) and the other was in the south (SU henceforth). In terms of the university examination scores, NU1 required a higher score than NU2 which required a higher score than SU. All participants were first year students and while the exam results provided a comparison of participants' language levels, the video interactions suggest they were of similar levels in terms of their communication skills.

4.2 Overview of data collection

I collected data from five cases in two phases with an additional pilot case. Data elicitation procedures are summarised in Table 4. More detailed information on data, including length of online sessions and interviews and word counts, is provided in Appendix 3.

Table 4 Summary of data elicitation

			Phase 1			Phase 2		
		Pilot Case	Case 1	Case 2		Case 3	Case 4	Case 5
Participant names and gender		Aylin (F) and Birsen (F)	Deniz (M) and Zeynep (F)	Filiz (F) and Nil (F)		Defne (F) and Hale (F)	Emre (M) and Osman (M)	Eda (F) and Ali (M)
Background questionnaire		✓	✓	✓		✓	✓	✓
DVC sessions		1	3	3		4	4	4
Post-task questionnaire			3	3		4	4	4
Interview + stimulated reflection			✓	✓		✓	✓	✓
Final questionnaire		✓ (including questions from the interview and post-task questionnaire)	comments	comments		comments + rating	comments + rating	comments + rating

4.3 Pilot study

There were several reasons for setting up a pilot case prior to the first phase of data collection. First, I wanted to test and select DVC software and screen recording software for the DVC sessions and determine minimum hardware specifications. Second, the pilot case would be good to try out questionnaire and interview items. Third, the pilot case would provide insight into the appropriateness of the tasks in terms of language level and as stimulus for interaction. Finally, data obtained from the pilot case would provide initial multimodal data for me to experiment with in order to decide on transcription conventions, transcription software and the level of detail.

The pilot case took place in November 2008 and the participants were selected in the same way as the main study. Aylin was from SU and Birsen was from NU1. Both were 18 years old and completed the interactions at home. Birsen's computer specifications were lower and the video quality was also poorer than Aylin's. Aylin had a laptop with inbuilt camera and microphone, while Birsen used a desktop with separate camera and headset.

We tried two DVC software programs: Skype (www.skype.com) and Flashmeeting (<http://flashmeeting.open.ac.uk/home.html>). Initially, I wanted to use Flashmeeting for its user-friendly interface and the recording function for data capture. However, it is designed for group discussions and thus prioritises the speaker both in audio and video modes. In Flashmeeting, only one person can speak at a time (preventing audio backchannels) and the frame rate of the listener's video is lower (preventing prompt visual backchannels). Moreover, Flashmeeting recordings only played back the video of the speaker, which was a limitation on what I could explore as a researcher in terms of the listener's video reactions. Moreover, I believe backchanneling (such as vocal confirmations and smiles) is a distinguishing and important feature of communication, especially in foreign language communication. For these reasons I wanted to compare interactions and recordings via Flashmeeting and Skype in the pilot study. Participants were familiar with Skype and

easily got used to Flashmeeting. The recording tool is an inbuilt feature of Flashmeeting. For recording interactions in Skype, at the time of data collection, Pamela (<http://www.pamela.biz/en/>), a tool designed for recording Skype interactions, could be used but it did not record video. Therefore, participants had to use external screen recording software (<http://www.supertintin.com/>) to record interactions in Skype. While there were no difficulties with the recording and the interactions in Flashmeeting for both participants in the pilot, Birsen's hardware specifications did not allow smooth running of Skype and screen recording software at the same time. When I asked the participants which tool they preferred, Birsen said, "Although it was more challenging, I liked flashmeeting much more" (student's own English). Aylin, on the other hand, preferred Skype because "skype is better and funnier than flashmeeting. in flashmeeting video quality isnt as good as in skype" (student's own English). Therefore, I decided to use Skype but keep Flashmeeting as an alternative for cases where the screen capture software did not work. However, I continued to look for a better option and tested different software with different hardware specifications. I compare DVC tools and explain the choice for the main study in section 4.4.

Prior to the DVC interactions, I met both participants online individually to show them how to use Flashmeeting and Skype. We used English from the start and I think that set the language of the context. These initial interactions served as software training, resulted in the participants associating FL use with the DVC context and created rapport and trust. Likewise, for the main study, I decided to meet each participant in DVC individually prior to their interactions with each other.

I suggested four tasks to the pair to guide their interactions. These were very similar to the tasks used in the main study (4.4.1 below). The topics for the tasks were to ask each other questions, to talk about their personalities, and to draw and talk about their rooms. The fourth task directed participants to an online website and was also related to

personalities. Aylin and Birsen completed three tasks which produced 60 minutes of interaction, half via Flashmeeting and half via Skype. The participants stated that they enjoyed the tasks. The tasks were useful in generating sufficient interaction; so, I made minor adjustments to the tasks and used them for the main study.

Although I had doubts about interactions between learners who were all Turkish, fearing they might find it artificial and switch to Turkish frequently, that was not the case at all in the pilot study. On the contrary, the participants valued being able to understand each other based on their shared background.

(source: written questions) (students' own English)

Aylin: you know that you know turkish but must speak in english☺ but i felt comfort myself when i thought that both of us caanot speak english very fluently. And you know whether we said wrong sentences which didnt have any meaning for an english people, we could understand each other☺ we sometimes thought like turkish and said in english but we could understand each other☺

Birsen: As I know she is Turkish, I was more relaxed to talk. Because I knew she would understand me.

The choice of first year ELT teacher trainees also proved positive in the pilot study; as expected, the participants appreciated the opportunity to practise their speaking skills, especially right after a year spent preparing for the university entrance examination. Both participants were female in the pilot study and so I could not observe any gender influence. I decided not to control for gender in participant selection, but draw on it to the extent that it emerged from the data.

Following the DVC interactions, I collected participants' views via e-mail to test the questionnaire and interview items. The written responses, which were in English, revealed that the questions were mainly good, but it would have been better if participants could choose to answer in Turkish for better self-expression. Moreover, it became clear that interviews are more appropriate to obtain views on social presence because it is a difficult concept to explain which involves feelings and thoughts.

The data obtained from the pilot study also allowed me to try transcription conventions, tools and level of detail for multimodal analysis. I explored transcription notations and practices proposed by Jefferson (1984) and Mondada (2008) and the tool ELAN (<http://www.lat-mpi.eu/tools/elan/>). I discuss issues of transcription and provide details of transcription and analysis tools in the subsequent sections.

Finally, the pilot study recordings were also useful to stimulate reflection for the main study participants, the details of which I provide in section 4.4.3.

4.4 Data collection instruments

In this section, I describe the data collection instruments, namely DVC sessions, interviews, stimulated reflection and questionnaires.

4.4.1 Desktop video conferencing (DVC) sessions

DVC sessions were the main data generating instrument in this study. First, the DVC sessions constituted the online context where the topic of research, that is, social presence, was constructed, and which was then investigated via interviews and questionnaires. Second, the DVC sessions were the research materials themselves which I multimodally analysed. As Peräkylä (2005, p. 869) stated

... research that uses naturally occurring empirical material is different; in this type of research, the empirical materials themselves (e.g. the tape-recordings of *mundane interactions*, the written texts) constitute specimens of the topic of the research. Consequently, the researcher is in more direct touch with the very object that he or she is investigating.

Therefore, the DVC sessions allowed me to be more in “direct touch” with the ways the participants constructed social presence in their interactions. In this sense, they were the empirical materials which I used to provide the etic perspective. Also, the sessions were the environment within which the participants experienced social presence, and on which they subsequently reported their own understanding, that is, the emic perspective.

The participants completed the sessions in English (EFL) guided by the given tasks. Some were strict in their approach to using English while others were flexible, switching to Turkish when needed. There were three main decisions to be made before setting up the DVC sessions in relation to the tasks which would generate the interactions, the DVC tool and how the sessions would be recorded.

I piloted four tasks (shorter versions as I had to remove detailed stages of the tasks due to time considerations), which I then used in the main study with minor adaptations. The main criterion for task design was the potential to stimulate interpersonal interactions. Hence, the tasks were flexible, open-ended and set plenty of time for completion. The tasks were also flexible as regards the level of English required; the participants could either communicate with limited linguistic ability or stretch their knowledge as they wished. The tasks worked well in Phase 1 (Appendix 4). In an attempt to observe how focus on language and collaborative work would affect SP development, I included collaborative writing tasks in Tasks 3 and 4 in Phase 2, and increased the difficulty of adjectives to describe personality in Task 2 (Appendix 5). These modifications generated different

attitudes and feelings. For example, in Case 5, Task 2, Ali felt less involved in the interaction and less able to express himself compared to other tasks because he did not know many of the vocabulary items given in the list of adjectives. In Case 3, Task 3, which comprised drawing a room, writing a description of the room and writing the plan of a joint trip collaboratively worked well. However, the same tasks in Case 4 resulted in tensions between the participants due to technological problems and different attitudes towards task completion. These are further explored in Chapter 5 in the introductions to relevant cases.

The second decision concerned the DVC tool. Following the pilot study, I initially considered and compared four tools: Flashmeeting, Windows Live Messenger, Skype and Elluminate. I tried these tools with different hardware specifications using the same internet connection to see how influential hardware was on audio and video quality as well as on the efficiency of screen recording software where needed. Table 5 shows my comparison of possible tools as of November 2008.

Table 5: Comparison of DVC tools

	Flashmeeting	Elluminate	Skype	Windows Live Messenger
Username and licence	I can book sessions with my OU username and participants could join as guests.	Each participant needs a username and a licence.	Easy to register with any e-mail address. Free.	Requires a hotmail or msn mail address (most participants have one). Free.
Software type	Web-based	Web-based	Install software	Install software
How to record	Automatic; only broadcast audio and video are replayed, silences are missing.	Inbuilt recording tool, replays all activity.	Needs external compatible software for recording audio and video (such as Pamela).	Screen capture software required.
Audio	Push-to-talk	Both push-to-talk and simultaneous, but too much echo in simultaneous mode.	Simultaneous	Simultaneous
Researcher's presence	Possible	Possible	Only in text (only two participants in video)	Only in text (only two participants in video)

Priority	Speaker's audio and video; listener's video frame rate is decreased.	Audio; video frame rate is decreased when audio transmission rate decreases.	No apparent priority for audio or video	No apparent priority for audio or video
Interface	Broadcast window on the left, video of other participants smaller, text window underneath.	Interface is cluttered with the presence of other tools. Interface can be altered to arrange space for text-chat. Video opens as pop-up where speaker's video is smaller than the other interlocutor's.	Video can be in the sign-in window, pop-up or whole screen. Speaker's video is smaller than the other interlocutor's. Text-chat appears as a pop-up window.	Video and text-chat are in the same window. Both listener and speaker videos have same size and frame rate by default.
Training required	Low	Medium	Low	None; all participants were familiar with the tool.

If Windows Live MSN messenger had offered recording features, it would have been the tool I would have chosen, both because of participants' familiarity and of the interface which allows equal access to speaker's and listener's audio, video and text messages. I tried several screen capture programs (for example, CamStudio <http://camstudio.org/>, Screen Video Recorder <http://www.wordaddin.com/screenvcr/>, Replay Video Capture <http://www.applian.com/replay-video-capture/>). Although Replay Video Capture was the most efficient in my trials, as the pilot study proved, participants could have difficulties running external recording software. Therefore, my initial priority was a tool with inbuilt recording. Although flashmeeting was easy to use, the inability to replay moments when there was no audio and/or video transmission and the fact that only one person can speak at a time with reduced video refresh rate for the listener, I set out to use Elluminate for the main study. My trials in the UK worked well, but once I tried it with the participants, most had difficulty in either running or using the software. Audio had severe echo problems and video transmission had very low quality and many interruptions.

As I was looking for other options, I found out about ooVoo (<http://www.oovoo.com/>), which became the tool used for data collection (see Figure 2 which shows a screen shot of the ooVoo video call interface). At the time, it allowed up to 6 people to participate in a video call, provided equal access to both the speaker's and listener's audio and video in terms of simultaneous talk feature and frame rate, had a simple interface very similar to Skype, had stable and good quality audio and video transmission, and had an inbuilt feature to record the call locally. It did not record text-chat which opened in a pop-up window, but it was possible to save it manually after the call. It was free during Phase 1, but required a \$10 subscription fee to enable the recording feature. I subscribed all participants in Phase 2. In Phase 1, I was in Turkey when participants had their sessions; in Phase 2, I was in the UK for most of the sessions. In both phases I was present online during the sessions, with minimised visual presence and disabled audio and video. I was recording the session, making notes on my initial observations and providing help

whenever participants requested. In some cases, audio and video transmission quality declined as participant numbers increased. In those cases, participants carried out and recorded the call themselves while I was present only in text-chat.



- ① Video and microphone controls
- ② Sound control
- ③ Internet connection quality
- ④ Left to right: send file, start and/or end call, start text-chat (pop-up window)
- ⑤ My presence, minimised, audio and video disabled
- ⑥ Participant videos with usernames on top (concealed)
- ⑦ Indication that the call is being recorded by the other participant(s)
- ⑧ Recording button.

Figure 2 ooVoo video call interface.

Participants in Phase 1 had 3 sessions, with a set time of 40-45 minutes each. Both cases completed the tasks in about half an hour or less. In Phase 2, initially I wanted to arrange shorter but more frequent sessions (about five). Due to differences in university academic schedules we arranged four sessions, each with a set time of 30-35 minutes. The length of sessions (listed in Appendix 3) varied up to one hour.

4.4.2 Interviews

Interviewing is rather like marriage: everybody knows what it is, an awful lot of people do it, and yet behind each closed door there is a world of secrets. (Oakley 1981:41, cited in Richards, 2003, p. 47)

In case study research, interviews are considered as one of the most important and indispensable sources of data because they provide a rich and in-depth understanding of the cases by allowing participants to report on their experiences and thoughts (e.g., Gillham, 2000; Rubin & Rubin, 2005). Qualitative interviews can provide valuable data which is inaccessible via other techniques (Blaxter, Hughes, & Tight, 2001). An interview "attempts to understand the world from the subjects' point of view, to unfold the meaning of people's experiences" (Kvale, 1996, p. 1).

The qualitative interview is a site where the participants co-construct knowledge within a professional encounter, where the purpose of the conversation is determined by the interviewer (Mishler, 1986; Kvale, 1996). Kvale (1996) uses the metaphors of miner and traveller to distinguish between two main approaches to the researcher's roles in the qualitative interview. While the miner seeks to unearth valuable, hidden experiences of the participants, the traveller shares reconstructed stories of fellow travellers upon return. Travellers see the interview as a journey of multi-layered conversation and are sensitive to their influence on the conversation and their own development. My role as an interviewer tends towards the traveller as regards my sensitivity to the influence of my presence, the

way I word the questions and reflect on my own understanding of social presence throughout. Still, I am also a miner in trying to access and reveal participants' valuable experiences within the boundaries of their own contexts.

In the present study I used semi-structured interviews which, because of their flexibility, are preferred particularly by "those working within an interpretive research tradition" (Nunan, 1992, p. 149). Semi-structured interviews allow "individuals to expand on their responses to questions" (Jones, 1991, p. 203). They empower the interviewee by giving a certain level of control over the development of the interview, at the same time providing the interviewer with flexibility to probe in-depth providing richer data (Nunan, 1992).

Richards (2003, pp. 47-101) provides detailed guidance on interviewing techniques, such as listening, prompting, when to ask what type of questions, do's and don't's, and basic principles of interviewing, such as preliminary questions, preparation, opening and closing. Nunan (1992) also recommends that the course of the semi-structured interview should be determined by topics and issues rather than a list of questions. While conducting the interviews, I kept Richards's recommendations in mind and used the questions and prompts in my interview guide (Appendix 9) as topics and issues to explore. I used prompts to get "depth, detail, vividness, richness, and nuance" of their experiences (Rubin & Rubin, 2005, p. 129).

I conducted the ten individual interviews face-to-face upon completion of all sessions in each phase within the first two weeks following the last session. I tape recorded all interviews and transcribed them afterwards. Online sessions were arranged when the participants were available, thus some pairs completed their sessions earlier than others. For practical reasons (travelling to different cities) the interviews took place in the same week for participants in each phase, which meant the time between the completion of the sessions and the interview varied slightly among the cases. Participants' comments

reflected their accumulated perceptions on the overall experience with potential influence of time on their memories and perceptions via retrospection. I provide the dates of online sessions and interviews, as well as the length of the interviews (both in minutes and number of words in transcripts) in Appendix 3.

Creating a safe environment where the participants freely talk about their experiences is highly important (Kvale, 1996; Fontana & Frey, 2005). Thus, prior to the interview, I briefly explained about the flexible structure of the interview and encouraged them to talk about their experience in as many directions as they wished. I also guaranteed anonymity and confidentiality both at the beginning and end of the interview. As I was already acquainted with the participants via our online interactions, I had already established rapport. I started the interview with a general question about their online experiences with CMC tools to get them talking. During the interview, I probed for examples and/or any instances they could recall from their online sessions. I asked participants to explain any unclear ideas further to avoid mapping my own preconceived interpretation. This was particularly important where my shared background with the participants could have easily led me to jump to conclusions. However, I tried to avoid being a total outsider and did not explore information which they would expect me to know (such as the nature of the university entrance examination and its influence on their development of certain language skills). I finished the interview by asking them if there was anything they wished to add (Dörnyei, 2007).

Sharing the native language with the participants allowed me to conduct the interviews in Turkish and this increased the validity of the interviews in terms of participants' linguistic expression and my understanding of the potential cultural connotations. I made clear both in interviews and open-ended questionnaires that they could use either Turkish or English or a mixture of both, in whichever they preferred to express themselves. The main language of all interviews was Turkish except for the odd English word.

4.4.3 Stimulated reflection

Stimulated reflection is an introspective method and a variant of stimulated recall.

Stimulated recall

can be used to prompt participants to recall thoughts they had while performing a task or participating in an event ... whereby the use of and access to memory structures is enhanced, if not guaranteed, by a prompt that aids in the recall of information (Gass & Mackey, 2000, p. 17).

In stimulated reflection, particularly in FLL research, the aid which is often used to enhance memory processes is an audio and/or audio-visual recording of learners' own conversation in order to stimulate reflection on certain features of the interaction (e.g., Levy & Kennedy, 2004; Miceli, Visocnik, & Kennedy, 2004). While the audio and/or visual aid overcomes heavy reliance on memory in stimulated reflection protocols, participants' awareness of mainly automatic cognitive processes should be considered with caution in interpreting the findings (Singhal, 2001).

In this study, I used an adapted version of stimulated reflection where I asked participants to reflect on a three-minute DVC interaction from the pilot study case (Extract 4.4-1) and not on their own interaction. There were two main reasons for this adaptation. Practically, due to internet connection problems some cases recorded their own DVC interactions and I only got the recordings when I met them face-to-face. This made it impossible for me to view the recordings beforehand and choose potential extracts for reflection. Second, and more importantly, the aim of the stimulated reflections was to elicit participants' perspectives on the influence of each available mode. As multimodal interactions are perceived holistically, it is difficult to distinguish the influence of each mode. Participants' perceptions of their experience had already been established via their multimodal interaction, and they would perhaps be influenced by these even if I replayed the modes

separately and asked them to reflect on them as if other modes did not exist (for details, see below).

This shift in technique turned out to be very useful because it provided access to participants' interpretation of the salient features they observed in other people's conversations. Moreover, an analysis of their comments also indicated that the way participants interpreted the conversation was very much influenced by their own experience and personal understandings which might mean that people develop their perception of others' presence and project their own presence in ways shaped through their, positive or negative, prior experiences. Therefore, reflecting on another pair's conversation allowed the participants to further reflect on their own relationship with their partner, to become more aware of the influence of each mode in the overall perception and start developing the ways in which they construct and project their social presence.

Technically, the section I selected from the pilot case recordings for reflection had good audio and video quality. Theoretically, it included plenty of self-disclosure, as well as variety in pitch of voice, smiles and gestures. To differentiate how each mode modified communication, I presented the modes (text, audio and video) in two different sequences in Phase 1 and 2 (Table 6). Participants in Phase 1, (Deniz, Zeynep, Filiz, Nil) first read a written transcript of the spoken interaction (Appendix 10), then listened to the interaction whilst the transcript was still available. And lastly they watched and listened to the recordings while the transcript was still available. For Phase 2, I changed the sequence because participants' comments in the first phase seemed to focus on the content and it was difficult to divert their focus and elicit their views on the impact of the audio and video modes. Thus, the participants in the second phase (Hale, Defne, Emre, Osman, Eda, Ali) first watched the video without any audio or text, then read the transcript and lastly watched and listened to the recordings while the transcript was also available.

Table 6 Sequence of modes for stimulated reflection

Participants	Sequence of modes
Phase I: Deniz, Zeynep, Filiz, Nil	text audio (+ text) video (+ text + audio)
Phase II: Defne, Hale, Emre, Osman, Ali, Eda	video text (+ video) audio (+ video + text)

It is worth noting that different sequences might produce different interpretations. For example, the participants in Phase 1 had access to the content on all three occasions and heard it twice: perhaps the re-reading of the content affected their interpretations. However, in Phase 2, participants had access to content in the last two reflections only and heard it only once.

The written transcript in text looked very similar to a text-chat exchange, with emoticons and no indication of audio cues. The presentation of turn-taking and overlapping speech were not very similar to text-chat transcripts, in the sense that turns in the written transcript followed one after another while text-chat turns may not always relate to subsequent turns as participants may initiate different topics at the same time. Yet, in the actual recording the flow was also smooth, without much overlap. The same interaction in text-chat might have meant participants accommodating to the text-only medium by using other emoticons to express their feelings. In the Turkish context, I find the most common emoticon to be :) (smile); others seem to depend more on the interactants and their relational shared background. Thus, it is important to emphasise that participants' views on text-only interaction is limited to the expressiveness and semiotic representations used in the current transcription. These would not necessarily apply to any other instant messaging experience, given the overlaps and various emoticons that could be used.

Prior to any watching, listening or reading of the interaction, I told the participants that these two girls were involved in the previous phase of the study and that they were also 1st year ELT students from two different universities who had not met face-to-face before. I did not explain that it was their first encounter online. I told them that the topic of the three-minute conversation was 'friendships'. With each mode, I asked them to comment on their impressions of the pairs and also on the quality of the interaction including participants' closeness, familiarity, warmth and sincerity. Especially in audio and video, I also tried to focus their attention on the influence of the specific modes rather than on the content.

After the stimulated reflection one of the participants (Ali) commented on the sequencing of increasing modes. He believed different meanings could have been more pronounced if I had first provided the content, followed by video and finally audio. He argued that would be the normal way in which different modes are brought into online social relationships.

(Interview)

Ali: The person is of course holistic, gestures, expressions, figures, and the like, are thus important. In fact the order would be the text comes first, then video, then audio-video, this difference could have been more salient if it was like this. ... In writing, you only have the content, it is the most difficult to interpret based on the content. When you see, it is half way there, and it is the easiest when you hear. Thus, the first point of departure is the content. Isn't it normally like that anyway; you first write, then see, and then hear the voice.

4.4.4 Questionnaires

As written instruments, questionnaires involve "a series of questions or statements" to which the respondents can reply by either selecting from given options or by providing written accounts (Brown, 2001, p. 6). Although it is impossible to probe and clarify,

questionnaires are efficient means of collecting data in terms of researcher time, researcher effort and financial resources (Dörnyei, 2003).

I used three different questionnaires for collecting data. The background questionnaire (Appendix 6) aimed to collect factual data on participants' hardware specifications, amount of time spent using CMC tools, their perceived level of FL and their age. The interview upon completion of all DVC sessions provided an accumulated and reflective perspective on social presence. I used post-task questionnaires to collect their immediate thoughts, feelings and attitudes in an efficient manner. Post-task questionnaires included questions to track participants' development of social presence and any memorable events encountered in each session as well as their perspectives on the tasks, the tool, perceived language development and the native language of their interlocutor. The questionnaires included both open and closed items. I adapted closed items from various scales already used in social presence research (Short et al., 1976; Charlotte N. Gunawardena & Zittle, 1997; Bozkaya, 2008; D.R. Garrison et al., 2008; Yamada & Akahori, 2007). In Phase 1, the first two questions in the post-task questionnaires aimed to track for SP development while the rest elicited views either on the tool, the tasks or FL (Appendix 7). I revised post-task questionnaires in Phase 2, because participants had to spend a lot of time after each session to complete lengthy questionnaires which decreased efficiency. In Phase 2, participants only replied to questions tracking development of social presence and any particular issues after each session, and I administered the rest of the questions following their last session (Appendix 8). The final questionnaire aimed to elicit participants' perspectives on various indicators of SP. It was conducted after the interview and the sequencing was intentional to avoid any influence of the final questionnaire items on their initial understandings.

The questionnaire items were introduced bilingually; in English and Turkish, because particularly the closed questions were taken from research in English, including some

phrases that were difficult to translate into Turkish. Providing the original statements preserved the validity of those items. Participants were free to choose in which language they would respond to open questions; most replied in Turkish.

4.5 *Data analysis methods*

Data analysis included thematic analysis of data elicited from interviews, stimulated reflections and open questionnaire items. Quantitative data obtained from questionnaires were only used for descriptive purposes where useful and were not subject to any statistical analysis. For the analysis of the multimodal data from DVC recordings, I drew on interactional sociolinguistics and semiotics. In this section, I explain each of the *analytical procedures in turn*, discuss how I ensured the trustworthiness of my study, consider issues of transcription and translation and finally summarise alternative methods of data collection and analysis.

As Creswell (2007, p. 164) states, all analysis initially involves the creation and organization of relevant data files which is followed by a general reading and annotating process. In this study, the files were in electronic format (in Phase 1 two participants completed the final questionnaire on paper: their responses were subsequently digitized). The participants filled in background, post-task and final questionnaires using a word processor and e-mailed them back. The interviews were audio-recorded and were then transcribed verbatim in Transana (Phase I) and Atlas-ti 6.0 (<http://www.atlasti.com/>) (Phase II). These transcriptions did not include prosodic features unless they changed the meaning. Desktop Video Conferencing (DVC) sessions were also digitally recorded. In Phase 1, I transcribed the content of all DVC sessions, but in Phase 2, I created session summaries and transcribed selected extracts. DVC transcriptions included variant degrees of detail and features of nonverbal behaviour. I discuss issues of multimodal transcription in the following sections. I uploaded all data files into the qualitative analysis software (Atlas-ti 6.0) and named them consistently.

4.5.1 *Thematic analysis*

Prior to a systematic analysis of data, the general reading and annotating process allowed me to start to make sense of the data and have a general idea of the outstanding features of each case. This also included a video-watching session with my supervisors in which we watched selected extracts from each case to guide more detailed analysis of the themes and significant features of the cases.

Following this initial organising, reading, watching and discussing, I embarked on a *thematic analysis of participants' perspectives* based on the data obtained from interviews, post-task and final questionnaires. For thematic analysis, I followed case study analysis principles identified by Stake (1995) and Creswell (2007) and grounded theory analytical principles stated by Strauss and Corbin (1998). Although grounded theory and case study research have quite distinctive features (for example, whilst grounded theory seeks to build a theory of the action or process by focusing on a central phenomenon, case study focuses on the description of the bounded context of the case), the open coding stage of grounded theory is similar to categorical aggregation in case study and identification of significant statements in phenomenology (Creswell, 2007, p. 164).

According to Strauss and Corbin, analysis includes three phases: open, axial and selective. (Strauss & Corbin, 1998). The open coding phase is the identification of salient categories based on the data which are then saturated by constant comparison method (constantly checking for other examples in the data which confirm or disconfirm the initial categories). Each category could have sub-categories or dimensions, called properties. The axial coding phase includes selecting a central category and establishing links (causal conditions), which are then organised into a theoretical model and usually represented in a figure. The last phase, selective coding, is the creation of hypotheses based on the relationships obtained in the axial coding phase. Strauss and Corbin define codes taken from the participants' own words as "in vivo codes" (Strauss & Corbin, 1998,

p. 105) and codes based on pre-existing categories from the literature as “constructed codes” (Strauss & Corbin, 1998, p. 115).

On the other hand, Stake (1995) proposes four forms of data analysis for case study research. The first of these, *categorical aggregation*, is a search for a collection of instances in the data “hoping that issue-relevant meanings will emerge” (Stake, 1995, p. 75). The second, *direct interpretation*, is the process of making sense of a single instance without looking for multiple instances. Creswell (2007, p. 163) interprets this form of analysis as “a process of pulling the data apart and putting them back together in more meaningful ways”. The third form is called *pattern establishment* which includes establishing patterns, that is, relationships between categories. This could allow looking for similarities and differences among the cases. And the last form of analysis is *naturalistic generalizations* which enable the readers to draw conclusions from the case for themselves and apply to other relevant cases. Finally, in addition to the four steps of analysis outlined by Stake (1995), Creswell (2007, p. 163) suggests including a description of the case which he defines as “a detailed view of aspects about the case”, that is, “the facts”.

Therefore, based on what is explained above, the open coding phase of the grounded theory analysis is similar to direct interpretation and categorical aggregation; axial coding to pattern establishment; and selective coding to naturalistic generalizations. However, grounded theory analysis and case study analysis diverge on two distinct features: the constant comparison method of grounded theory and the outcome (hypotheses presented within a theoretical model based on a central category versus naturalistic generalizations as guidance for the reader).

In this study, I followed the open coding principles of grounded theory analysis establishing salient categories in the first case and then constantly comparing and

contrasting them with further data analysed in the subsequent cases. I find this process more thorough and reliable than simply “hoping that issue-relevant meanings will emerge” as in categorical aggregation of case study analysis. In other words, I first tried to make sense of single instances (direct interpretation), then coded them in salient categories (categorical aggregation) and as I looked at data from each case, I constantly compared and contrasted single instances and accordingly revised the categories. During this process, some of the categories proved to be unique to a single case, and were then excluded from cross-case themes. These were subjected to direct interpretation, by being put together in meaningful ways to describe, explore the facts about, and present the bounded context of each case.

When looking for relationships between categories, rather than selecting a central theme (as in axial coding), I treated each theme as equal and looked at the ways in which they were inter-connected. I visually represented the links in a network view. Some of the network views were very useful in indicating stronger and weaker relationships (Figure 14, p. 289; Figure 15, p. 298); while others were too complicated and cluttered and represented only the complexity of the relationships (Figure 16).

In terms of the outcome, I adhered to case study principles and retained my belief in the uniqueness of each case. Hence, following the establishment of cross-case themes and relationships between them, I made naturalistic generalizations for readers to interpret and apply for themselves (in contrast to hypotheses within a theoretical model).

To support my claims in cross-case themes, I presented quotations from the data which were typical and succinct, in other words, the data which could represent other data and which could be reported in the minimum space available in the thesis. I also looked for particular quotations which were distinctive for certain participants and marked them to illustrate individual differences.

In the rest of this section, I illustrate the aforementioned procedures in detail. This includes some terminology used in Atlas-ti 6.0. 'Quotations' are any selected piece of data. 'Codes' are categories or themes. 'Code families' are abstract containers that combine related codes, useful for pattern establishment and axial coding. A 'network view' is a visual representation of the relationships between codes and code families. 'Memos' are comments and/or annotations that could be attached to quotations, codes or other memos.

Illustration of thematic analysis

Initially I carried out open coding of the data collected from Case 1. This analysis was an attempt to find my way around selecting quotations and coding them; whether to code in keywords, phrases, or sentences, and how to annotate initial thoughts in the general reading phase. First, I started marking statements which expressed one idea, feeling or interpretation as a 'quotation'. As I went along, I annotated these quotations with comments (memos). However, in Atlas-ti 6.0, it was not possible to see these comments in the margin of the data on screen unless the cursor hovered over a small corner of the quotation which indicated it was commented. Moreover, it was also not possible to work with comments as you would with codes, that is, grouping and creating relations. Although I was initially hesitant to create codes right away, I noticed that Atlas-ti was flexible enough to alter, merge and divide codes if necessary. Hence, I went through the data once again, this time attaching codes to quotations, which were in the form of short summaries or phrases that expressed the upshot of the idea in the quotation. Drawing on phenomenological analytical techniques, I selected significant statements and rephrased the idea stated in each. For this process, I used in-vivo coding (Strauss & Corbin, 1998, p. 105), that is, I kept the codes close to data by using participants' own words. I named each code starting with the case number and initials for each participant to ease identification of ideas in cross-case analysis. I started creating codes in English, thinking it would help presentation of the data, even though all interviews were in Turkish and

questionnaires were a mixture of English and Turkish depending on participants' language preference. (I discuss translation issues in section 4.6.) I believed that the language used in this stage of coding would not influence the analysis much because, if required, it was very easy to view source data (related quotation) with a double click on the code.

However, in time, that turned out to be inefficient, for two reasons: first, I would not possibly use every single translated code in the presentation of the analysis, and second, I found myself checking the source data whenever I was unsure of how I translated any difficult-to-translate words and phrases (such as "*samimi*" meaning sincere, familiar, genuine, intimate, warm, friendly). Thus, initially I had started to keep difficult-to-translate phrases in Turkish in the codes, and later on, especially in the subsequent cases, I kept all coding in Turkish, which I believed kept distortion of the data to a minimum, bearing in mind that all coding, translation and transcription are interpretations of the data. Moreover, Turkish being my native language, I also believed keeping the codes in Turkish increased my analytical power and enhanced the robustness of my analysis.

Figure 3 shows a screen shot of the layout in Atlas-ti 6.0 where codes are attached to quotations in the right hand margin of a transcribed interview.

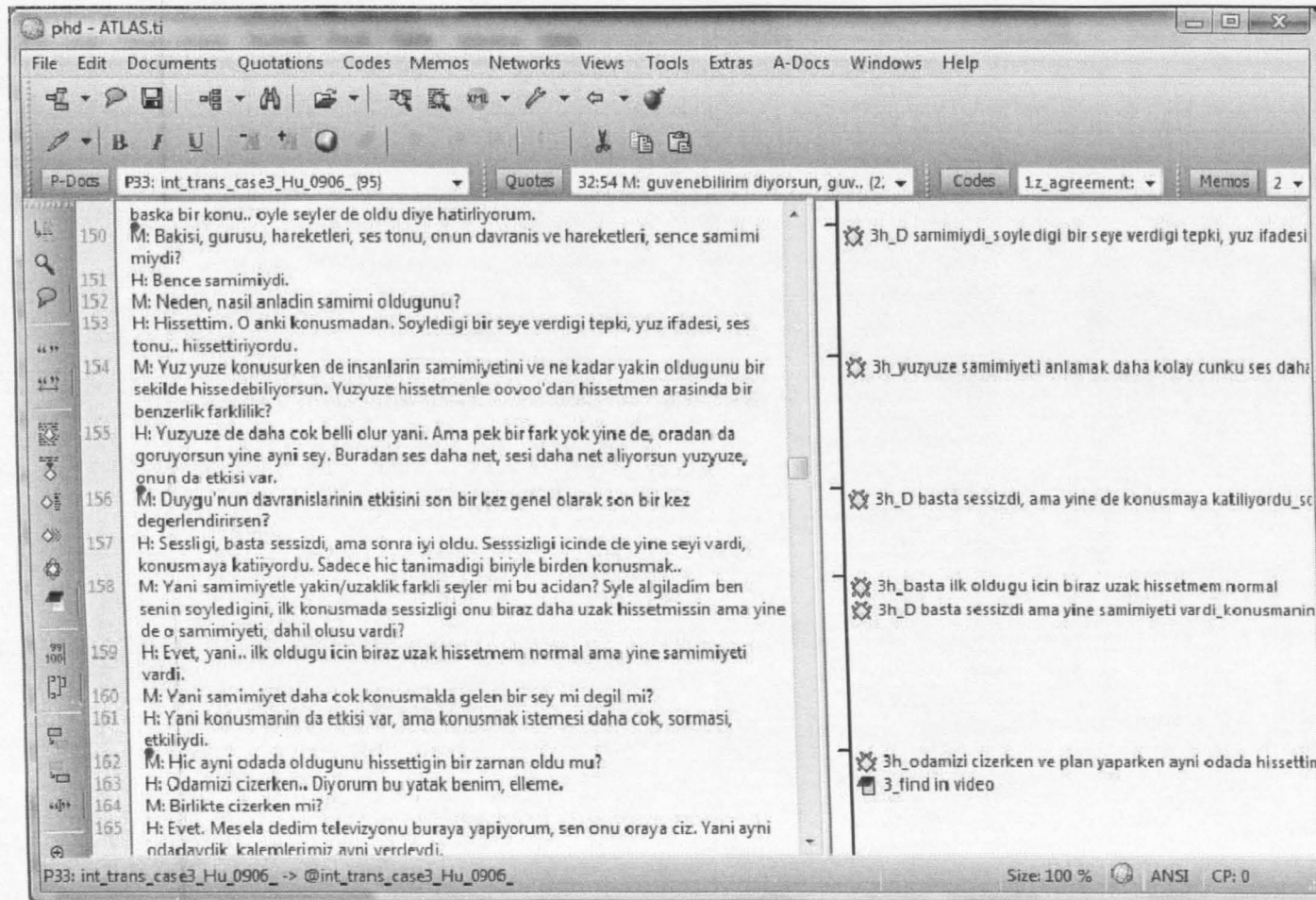


Figure 3 Screen shot of the layout in Atlas-ti 6.0 – interview transcription and coding

At the end of the open coding stage of the interviews of Case 1, 183 codes (in-vivo codes) were created. I then assigned these codes to 23 code families (combining codes in categories that relate together which is a transitional stage for conceptual analysis). When a code was assigned to more than one possible category, links were created between these categories which could later be displayed in a network view. Although I tried to name the categories using in-vivo codes as much as possible, some were influenced by constructed codes (Strauss & Corbin, 1998, p. 115) available in the literature. It was difficult, and also not practical, to avoid pre-existing terminology when it was appropriate. I revised these categories systematically to check whether any needed merging or splitting and whether each code matched the corresponding category. This process resulted in 21 categories (20 categories and 1 undefined category) shown in Figure 4.

































Code Family Manager [HU: phd]		
Families Edit Miscellaneous View		
          		
Name	Size	Author
 anxiety	7	Admin
 asking questions	11	Admin
 body posture and positioning/looking at screen	15	Admin
 compliments/encouragement	6	Admin
 cyberspace/internet communication	23	Admin
 empathy	11	Admin
 FL	16	Admin
 help / assistance / facilitation	5	Admin
 humour/teasing/geyik	6	Admin
 immersiveness	5	Admin
 intersubjectivity / membership / togetherness / involvement	13	Admin
 keep distance - not over familiar	10	Admin
 power	6	Admin
 reciprocation / mirror / accomodate / reaction	11	Admin
 self-disclosure / feelings	10	Admin
 smile	13	Admin
 tasks	7	Admin
 trust	22	Admin
 undefined	23	Admin
 visual expressiveness	22	Admin
 vocal expressiveness	9	Admin

Figure 4 Initial categories generated based on Case 1

In Figure 4, size indicates the number of in-vivo codes grouped under each family, that is, the density of each family. Accordingly, most prominent categories were: visual expressiveness, trust, smiles, influence of foreign language (FL), the qualities of communication in cyberspace, body posture and use of screen, and asking questions. The “undefined” category included codes that related to participants' thoughts about each other, suggestions for the next phase and codes which did not fit any other category.

During this stage of analysis, I identified significant statements (quotations), rephrased the main idea in a short sentence (codes) and then assigned them to code families (categories). I was hesitant to code using the categories straight away at the time, partly due to my inexperience and lack of confidence in interview analysis as well as using Atlas-ti, and partly due to a concern about mishandling the data set and analysis. If I were to code the interviews again, I would select significant statements as quotations and directly code them into categories. I would also name the categories with potential properties, such as online communication: lack of trust; online communication: immersiveness; online communication: use of webcam; and so on.

Once I obtained the code families, I displayed them visually as a network view. I specified relationships between statements and codes and tried to generate naturalistic generalisations. This is how I introduce Case 1 in Chapter 5. The idea was to report each case in the same manner. However, it became apparent that it would result in repetitions and the unique characteristics of the case would be lost. Therefore, I leave the introduction to Case 1 as original to represent my analytical method and development of ideas, but in the presentation of cases 2 to 5, I explore the uniqueness of each case by including data from interviews, questionnaires and DVC sessions.

In the resulting cross-case thematic analysis, following the open coding of the data for all cases, 1484 codes and 45 categories (code families) emerged. Of these 45, 1 was the

undefined category (which was renamed as 'comments about the study'), 1 was a category of statements which referred to events in video sessions and 5 were selected codes for writing up each case introduction.

In the pattern establishment stage (axial coding) of the analysis, I revised, combined, or separated the categories, visualised the relationships in network views, and identified main themes (selective coding), which I present in Chapter 6.

4.5.2 Analysis of questionnaires

I collected both qualitative and quantitative data via background, post-task and final questionnaires. I included the qualitative data in the thematic analysis I explained above. I did not carry out any statistical analysis of the quantitative data because I did not aim to generalise in statistical terms as in positivistic research. I coded the data in a Microsoft Excel sheet and compared data within and across cases via tables and graphs. Some of the quantitative data were useful especially in case introductions, but did not yield significant results in cross-case analysis. I discuss potential reasons for insignificant results in section 6.5.

4.5.3 Multimodal analysis of DVC recordings

All human communication is mediated via tools such as language, people, technology or cultural and institutional assumptions (Vygotsky, 1978; Leontiev, 1981). In computer-mediated contexts, tasks, participants and physical settings are also tools that mediate interaction (Lamy & Flewitt, in press). Norris (2004) argued that there are two aspects of mediated interaction: expression and perception. "All movements, noises, and material objects carry interactional meaning when they are perceived by an individual" and meaning-making depends on the "social actors' attention / awareness" (Norris, 2004, p. 9 and 151). Baldry and Thibault (2006) define multimodality as a diversity of meaning-

making activities. In multimodal meaning-making, people rarely rely on a single mode completely separately. While para-linguistic features are often assumed to be subordinate to language, Norris (2004, p. 53) advocates that analysis of multimodal interaction should not “assume any hierarchical structure of the modes”.

I take a holistic stance on multimodal meaning making and multimodal analysis of interaction. I believe that meaning made via a combination of modes does not equal meaning expressed in each component. The selection of modes could be intentional, but most of the time is automatic and subconscious, especially in casual, spontaneous conversation. Messages sent via different modes can carry complementary, contradictory or similar meanings. It might be difficult to discern the influence of each mode on the meaning without conscious reflection. Moreover, the hierarchy of modes could be different when sent by the speaker and when received and interpreted based on the receiver's attention, which might result in a different perceived meaning from that intended. In order to determine how messages are interpreted, not only the sent messages, but also “how other individuals in the interaction react to these messages” should be analysed (Norris, 2004, p. 4).

There is inconsistency in multimodal research regarding the use of terms such as mode, modality, media, medium, channel, and code. These are sometimes used for distinctive meanings such as telecommunications *media* or *modals* in grammar. In order to introduce the concept of multimodal communicative competence, Royce explains multimodal communication where “images co-occur with spoken and written modes” (Royce, 2007, p. 366). Rapley (2007, pp. 64-65) states that “the multimodal data may include a variety of modes such as gaze, touch, gestures, posture, spatial positioning and actions as well as features of sound and text”. Norris (2004) defines the elements of meaning such as proxemics, gesture, head movement, or physical appearance as communicative *modes*, whereas in nonverbal communication research, some of these elements are referred to as

nonverbal *codes* (Afifi, 2007; Andersen, 2008). Lamy (2007b) refers to technological features of an audio-graphic conferencing system in their relationship to certain semiotic resources as *modalities*. The semiotic systems in her data were written and spoken language, while the modalities were audio, text-chat, shared document and voting system. In her paper, she also sometimes refers to the audio *channel*. Baldry and Thibault (2006) also use *modalities* and *media*:

Different semiotic modalities make different meanings in different ways according to the different media of expression they use. (Baldry & Thibault, 2006, p. 4)

For the sake of simplicity, in my analysis I use the term *mode* in order to differentiate the written, spoken and the visual fields that can be utilised for meaning making via DVC. Each of these modes includes several features that make meaning, such as capital letters, pitch of voice and gestures. I identify three modes; text, audio and video in relation to the way they are referred to in CMC literature as text-chat, audio-chat and video-chat.

In my analysis of multimodal DVC interactions, I draw on principles of social semiotics and interactional sociolinguistics. Semiotics is the science of signs and studies how meaning is made through semiotic systems other than language (van Lier, 2004). The main authors in the field of semiotics are Kress and van Leeuwen (2001). In their 2001 book they adapt Halliday's Systemic Functional Linguistics to objects other than language and mainly investigate semiotics of multimodal pages from a static perspective. They also explore how humans make sense of these systems in sociocultural practices, such as writing or reading a paper together. In this study, within this perspective, I investigate participants' meaning-making practices via semiotic systems available (and sometimes not available, such as gaze) in DVC, in particular how they express and perceive the salience of their relationship and the interaction.

I also draw on interactional sociolinguistics (Gumperz, 1982, 2003) in its emphasis on cultural variation in meaning-making and interpretation of contextualization cues (any verbal sign, such as accent, prosody and code-switching). Interactional sociolinguistics (IS) concentrates on speech exchanges and

[t]he aim is to show how individuals participating in such exchanges use talk to achieve their communicative goals in real-life situations, by concentrating on the meaning-making processes and the taken-for-granted, background assumptions that underlie the negotiation of interpretations. (Gumperz, 2003, p. 218).

Gumperz argued that "IS approach to diversity is essentially a semiotic one, which allows for a shifting balance between multiple inputs" (2003, p. 219). However, he did not investigate the visual semiotic systems and primarily explored audio recordings of intercultural communication focusing on communication difficulties explaining how miscommunication occurs due to different meaning-making practices and interpretation of contextualization cues by different cultures.

Interactional sociolinguistics has been valuable in my study for its focus on cultural differences and observable semiotic cues influential in meaning-making as well as bringing in the emic perspective by interviewing participants to check one's own interpretations. Furthermore, I also consider elements of the visual mode as contextualization cues (such as posture, gaze, gestures and facial expressions), focus on how communicative harmony, not difficulty, is achieved through shared cultural and linguistic background, and explore how participants project and perceive each other's social presence in the interaction through simultaneous use of linguistic and paralinguistic contextualization cues (text, audio and video modes).

Moreover, application of Gumperz's work on casual conversations by Tannen (2005) and Eggins and Slade (1997) and works of nonverbal communication (Afifi, 2007; Andersen,

2008; Knapp, 1980; Richmond, McCroskey, & Payne, 1991) have also been influential in my analysis.

Illustration of multimodal analysis

I began the analysis by taking rough notes on the interactions simultaneously as they took place whenever I could attend the DVC session as the silent participant. During this initial stage, this included short notes with time stamps of any interesting features I could observe, such as when participants focused on language and asked each other the meaning of the word, when they stood up and showed their height, when they showed each other pictures, when they seemed to understand each other without the existence of a linguistic expression or when they used Turkish humorously. These notes were not systematic because taking notes live interrupted my attention to the interaction and sometimes we had to deal with technological problems.

In Phase 1, following the interviews, I had collected all recordings and could then commence more systematic analysis. Initially I watched and wrote down a summary of the sessions, dividing each interaction into segments marked by a change of topic. Transcription has been recognised as an initial stage of analysis through which aspects of the data worth further investigation may begin to reveal themselves (Dörnyei, 2007; Swann, 2010). Thus, I decided to transcribe the sessions in more detail. However, established analysis and transcription protocols of multimodal data did not exist, in particular in order to analyse social presence in multimodal contexts. For multimodal transcription in general, a diversity of techniques abound, from presenting data in tables using specific notations or descriptions to providing a sequence of still images or a single image with actions or words edited on it (Baldry & Thibault, 2006; Flewitt, Hampel, Hauck, Lancaster, & Jewitt, 2009; Lamy & Flewitt; Norris, 2004; Swann, 2010). Different techniques prioritise different modes; for instance, when transcribing in columns the left column (usually the language) gets more emphasis due to reading practices from left to

right, while linguistic transcription edited on still images (such as Norris, 2004) prioritise the visual mode. In terms of transcription notations, there is no single system established, yet.

I first attempted to transcribe a short segment of multimodal data following the pilot study.

I used ELAN (<http://www.lat-mpi.eu/tools/elan/>) which allowed annotating actions in different modes in any number of timelines to include layers of detail. Figure 5 shows my first attempt at transcribing multimodal data in ELAN.

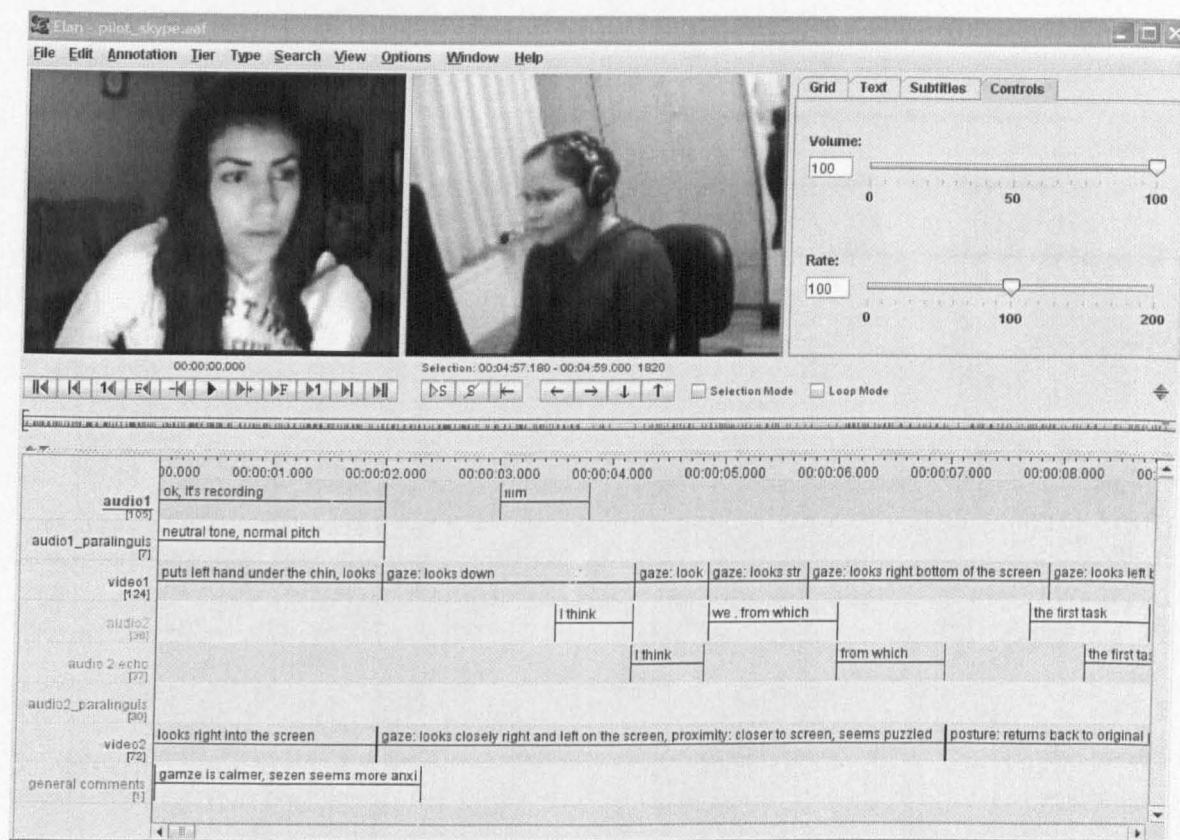


Figure 5 Transcription in ELAN (pilot study)

The transcribed extract in Figure 5 was five minutes long and took me six hours to transcribe. For the main study, it was obvious that I would not be able to transcribe all data in such detail. Thus, I decided to transcribe the DVC sessions in Phase 1 verbatim, including any paralinguistic features that are significant in meaning making and projecting social presence. I started using Transana (<http://www.transana.org/>) for transcribing at this

stage, because it also allowed creating relationships between categories of codes and keywords. Using Transana, I could work on a linear transcription as I would perhaps use when presenting the findings (see Figure 6) and I could also include time stamps to certain segments and replay them easily.

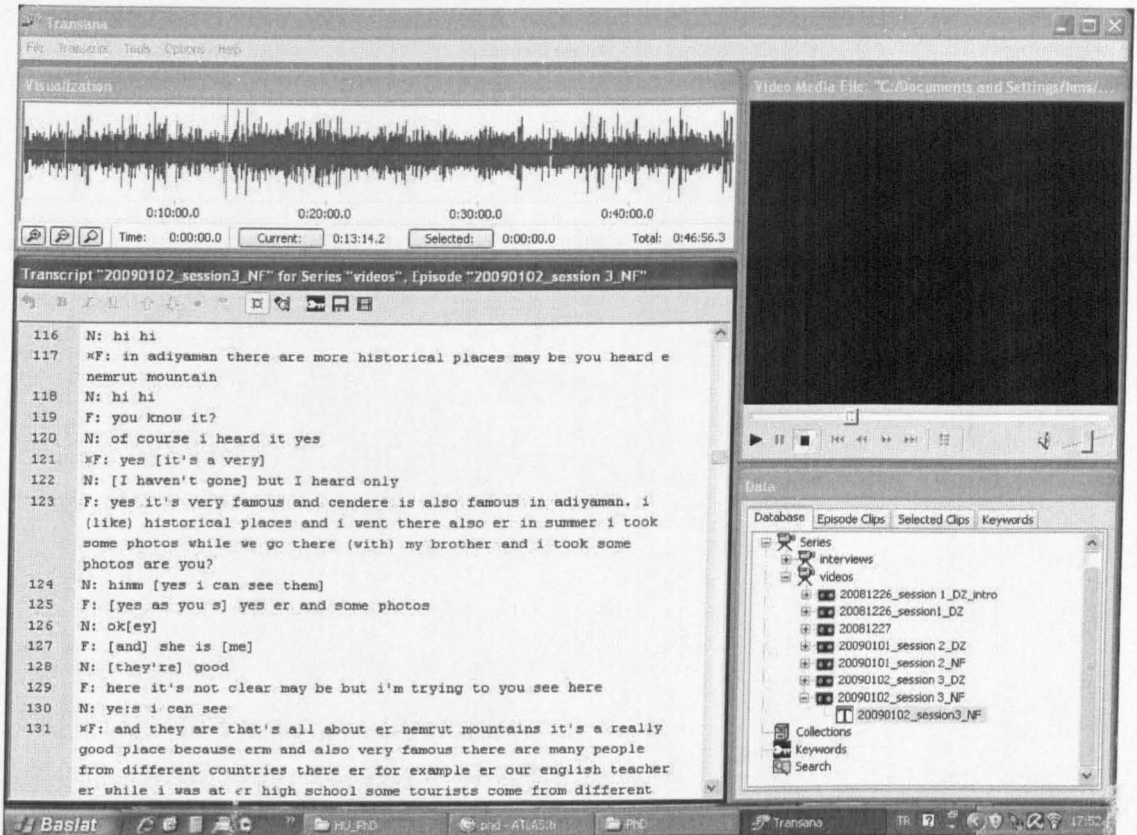


Figure 6 Transcription in Transana (Phase 1) (Please note that the video file could be seen in the black area in the top right hand corner but did not appear in print screen)

I transcribed all data in Phase 1 in a similar manner. However, transcription took much longer than I expected and left me restricted time for analysis before I started Phase 2. Therefore, I decided to prepare a summary of each session to provide an overview of the interaction and then select salient segments of the sessions and do detailed analysis and transcription of those sections. I based the selection of these segments on participants' comments during the interviews, specifically when they referred to certain events in the sessions and my notes in my observations. About the same time Atlas-ti, qualitative data analysis software, had released a new version (6.0) which enabled more efficient ways of

working with video data. I transferred all my transcriptions into Atlas-ti and started using it as both a transcription and an analysis tool (Figure 7).

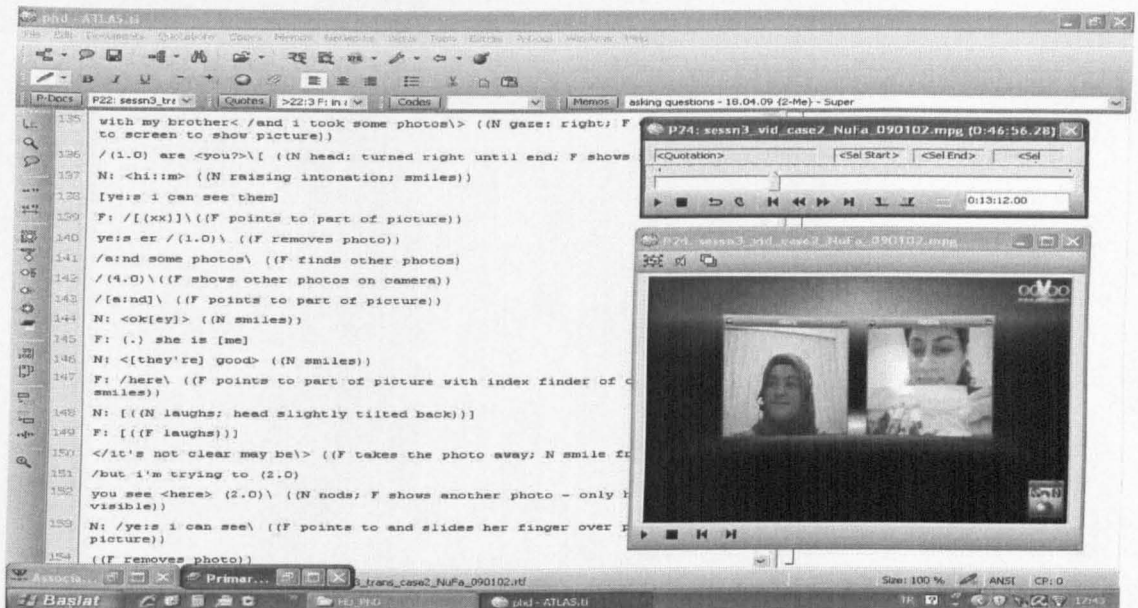


Figure 7 Transcription in Atlas-ti

By the end of Phase 1, my view on transcription as a valuable analytical tool had changed, in particular when large amounts of multimodal data was at stake. It was apparent that multimodal transcription could not represent the data fully and it was already an interpretation of what was going on. As Rapley stated,

... transcribing multimodal data is more complex than single mode data and is always selective and partial (2007, p. 70). ... Through providing some version of a transcript you are always trying to give readers *access* to what you were able to witness (2007, p. 52).

Following Bryman (2004, p. 332) and Rapley (2007, p. 58), I decided to undertake analysis primarily by replaying and watching the recordings with an analytical eye several times and making notes and transcriptions as necessary. In Phase 2, I only prepared a summary of each session with little transcription in between. At the end of all data collection, we had a video viewing session with my supervisors watching and interpreting

segments of DVC sessions for each case in the study. Therefore, my final analysis of DVC sessions focused on selected salient segments based on my own observations, participants' reflections and experts in the field, specifically in relation to the elements which influenced the projection and interpretation of social presence of the actors involved and of the salience of the resulting relationship.

4.6 *Concluding remarks on data collection and analysis*

4.6.1 *A note on translation*

The language of all DVC sessions in this study was English except for some instances of code-switching. All interviews were carried out in Turkish. Questionnaires were bilingual where most participants answered in Turkish, but some in English. In what follows, the data presented in the analysis from questionnaires and interviews are my translations of the original data, except where marked as "student's own English". In the latter case, no corrections have been made. In some data, I kept the Turkish words which were difficult to translate in the context such as "*samimi*" which can be translated as sincere, intimate, warm, close, friendly, genuine, or familiar. I wrote these Turkish words in italics and greyed them out. When translating, I kept close to the style in the original language, including grammatical and cohesive mistakes, hesitations, reformations and discourse markers. Turkish is a gender neutral language, thus I use s/he and him/her where the gender was not specified. I provide sample translations below which are quotations from interviews with Defne and Nil. Full transcripts can be made available upon request.

(interview with Defne)

Defne: I have a friend in America, for example, when we don't use the camera with her/him, when we just talk, s/he says when you don't turn on the video I feel like talking to a ghost, I can't feel your sincerity, and s/he always invites me to a video

call. ... feelings are important for me, when writing I wonder whether the person really feels/means what s/he writes, or whether s/he is saying that not to offend me. But as I could see her, I could act a bit more close/intimate, I could see she felt what she said, wrote.

Defne: Amerika'da bir arkadaşım var, onunla mesela kamera açmadığımızda, sadece konuştuğumuzda diyo ki, sen kamera açmayınca ben sanki bi hayaletle konuşuyormuşum gibime geliyor diyor, o içtenliği hissedemiyorum diyor, ısrarla kamera açtırmaya davet ediyor... ben hislere önem veriyorum, yazarken acaba hissederek mi yazıyor, yoksa hani kırmamak için mi diye bir düşünürdüm. Ama gördüğüm için biraz daha yakın davranabildim, hissederek söylediğini, yazdığını görebildim.

(interview with Nil)

M: Did you ever not feel the computer interface at all, have moments when you forgot that you were talking online?

Nil: No, I was checking if I clicked on the record button to see if there was anything wrong, I mean I think worry about any mishap made me feel like that. I mean as I worried about finishing it without any problems I always felt we were in front of the computer. Also you were sending us things every now and then, I think, like in the beginning how is it going and such, I mean I felt that we were in front of the computer.

M: Hiç bilgisayar arayuzunu hiç hissetmediğin, bilgisayarla konuştuğunu tamamen unuttuğun anlar oldu mu?

Nil: Olmadı, belki arada bir böyle kaydetme düğmesine bastım mı diye bakıyordum bir aksilik filan var mı acaba diye, yani bir aksilik olmaz düşüncesi de onu hissettirdi bence. Yani bir şey olmadan bitsin şeklinde bir şey olduğu için kafamda o da etkili oldu yani onun cin yani hep bilgisayar ortamında olduğumuzu hissettim yani bir de arada bir sizden de şeyler geliyordu zaten, hani galiba nasıl gidiyor filan gibi

baslarında filan, hissettim yani bilgisayar ortamında olduğumuzu.

4.6.2 Trustworthiness

Trustworthiness or credibility in qualitative research involves justification of the research decisions, showing consideration of the ethical issues involved, using rigorous methods, presenting the findings which arise out of the data, ensuring that the interpretations are transparent, and having a clear, logical and persuasive presentation (Creswell, 2007; Hammersley, 1992; Lincoln & Guba, 1985; Miles & Huberman, 1994; Silverman, 2006; Stake, 1995; Yin, 2003). Hammersley and Atkinson (1995, p. 12) underscore relativity of claims “to the paradigm within which they are judged; they are never simply a reflection of some independent domain of reality”.

I ensure the trustworthiness of my study first by justifying research decisions and explaining the methodological paradigm within which the claims are credible. I collect multiple sources of data, both qualitative and quantitative, and triangulate the findings whenever possible. I also try to be reflexive in my use of methods and data collection techniques, exploring and reporting any potential researcher influence. In my analysis, I provide thick descriptions of the cases involved to allow the readers to have their own understanding and interpretation of the context. I also provide both the etic and the emic perspectives through an exploration of video data and triangulating it with interview data. I try to provide as many potential interpretations as possible before I provide my own perspective. Rather than distancing myself from the data, I try to be reflexive and use my shared background with the participants as a basis for my interpretations. Last but not least, I provide detailed explanation and illustration of my analytical procedures and reasoning.

4.6.3 *Other methods considered*

This research could have been conducted using several other methods including discourse analysis, conversation analysis, critical discourse analysis, discursive psychology, ethnography, grounded theory and phenomenology as well as surveys and experiments. The rejection of the latter two methods were more straightforward than the others. Surveys collect quantifiable data from populations in order to describe or identify co-variation between groups (Sapsford, 2007) and experiments test hypotheses by controlling certain variables in order to generalise the findings via measuring statistical significance (Broota, 1989). The aim of this study was neither to test hypotheses nor identify co-variation.

Plenty of research on social presence within the community of inquiry framework uses content analysis (Krippendorff, 2004; Neuendorf, 2002; Weber, 1990). Despite several criticisms of content analysis such as the difficulty to identify units of analysis and treating each item with equal importance (de Wever, Schellens, Valcke, & van Keer, 2006), the main reason I did not undertake content analysis was because it maps the researcher's understanding of a phenomenon on to the data, and not the participants'.

In terms of exploring the participants' understanding of a phenomenon, grounded theory (Strauss & Corbin, 1998) and phenomenology (van Manen, 1997) could have been productive. However, both methods have clear and established steps of the research process and rely primarily on interview data. Neither method was useful in exploring the multimodal recordings. Moreover, despite an emphasis on participant views and experiences, I find both methods somehow positivistic in their attempt to achieve a generalisable theory or the essence of the real life experience. Thus, I did not use either method, but in analysing the interview data, I drew on a grounded theory approach to thematic analysis and was inspired by phenomenological analysis in identifying and summarising significant statements.

For the analysis of DVC recordings, discourse analysis, in general terms, was the most relevant method to be used. However, discourse analysis has different and distinct types, such as conversation analysis (ten Have, 2007; Psathas, 1995), discursive psychology (Edwards & Potter, 1992), critical discourse analysis (Fairclough, 2010), or computer mediated discourse analysis (Herring, 2001, 2004). I used computer-mediated discourse analysis as the approach because it does not specify analytical steps, but rather identify the subject of analysis, that is, discourse produced in computer-mediated contexts. I eliminated conversation analysis (CA), discursive psychology and critical discourse analysis, because my focus was neither the political or psychological influences upon discourse nor detailed analysis of small conversation segments to explore interaction practices such as adjacency pairs and turn-taking.

In terms of data collection instruments, I had initially planned to use focus groups in order to stimulate ideas and stir discussion, but it was not practical logistically as participants were in different cities. Also, I was not interested in the co-construction of knowledge within the group. I did not use language tests to assess participants' linguistic improvement due to the difficulty to measure development. Within a sociocultural and interpretivist perspective, language use would eventually lead to improvement and data on perceived language gains would suffice for the aims of the present study. I did not use think-aloud protocols, because they would obviously interrupt the flow of the interaction and I preferred stimulated reflection to reflective think-alouds as I explain in section 4.4.3. In terms of multimodal analysis of interactions, key stroke or eye tracking or videoing participants in their physical environments would not be useful to investigate social presence in DVC, because I mainly explored the interaction to the extent that it was accessible to both participants.

Chapter 5 Case introductions

In the previous chapters, I outlined the theoretical and the methodological frameworks within which I explore how social presence is experienced via desktop videoconferencing in interactions between language learners. I explained how I collected various data from five cases using interviews, questionnaires and desktop videoconferencing sessions and the methods I used to analyse the data. In this chapter, I present each case in its unique context, and discuss salient features by drawing on all sources of data collected. The format for Case 1 is different to the others in order to exemplify different presentation styles and illustrate my analytical method and the way cross-case themes, which I present and discuss in more detail in Chapter 6, emerged. The network views illustrate emerging relationships between codes and how I switched languages in my coding and analysis. I note that these network views are work-in-progress and may contain errors. I also provide flow of sessions (session summaries) for Case 1 and more detailed transcriptions of selected extracts.

5.1 Case 1: Zeynep (female) and Deniz (male)

Zeynep, registered at NU1, was 18 years old, and worked at a private language course as a teaching assistant at the weekends. She was staying at a dormitory close to her university. She had no computer or internet access so participated at a nearby internet café, but dormitory rules required her to be indoors by 6pm, which made scheduling online sessions problematic. She had to rush to finish the sessions, to wait for the tool (ooVoo) to process the session and save it locally, and to complete the post-task questionnaire. Her computer literacy was low and she received help from her partner, Deniz, in recording and saving online sessions.

Deniz, registered at evening classes at SU, was 20. His dormitory had reasonably priced internet access, although computer specifications and internet speed were low, which caused audio delays and pixel distortions in the video. Thus, he participated in the first online session from a friend's house and the other two from an internet cafe. He had good computer skills and provided help to Zeynep as necessary. His study pattern further complicated the session schedule.

Zeynep was very self confident about her foreign language (FL) use, while Deniz was usually frustrated about his use of language. Both expressed their views about their use of language in interviews, post-task questionnaires and during their online interactions. In their background questionnaires, they both described themselves as advanced level English learners. Both were familiar with synchronous online communication tools, msn/windows live messenger in particular. Both stated that they were using all three modes in their daily life: text, audio and video. Deniz reported a slightly higher use of text and video than audio. They mainly used Turkish in their online interactions with others. Based on self-reports, Deniz's use of English in his online interactions was more frequent than Zeynep's.

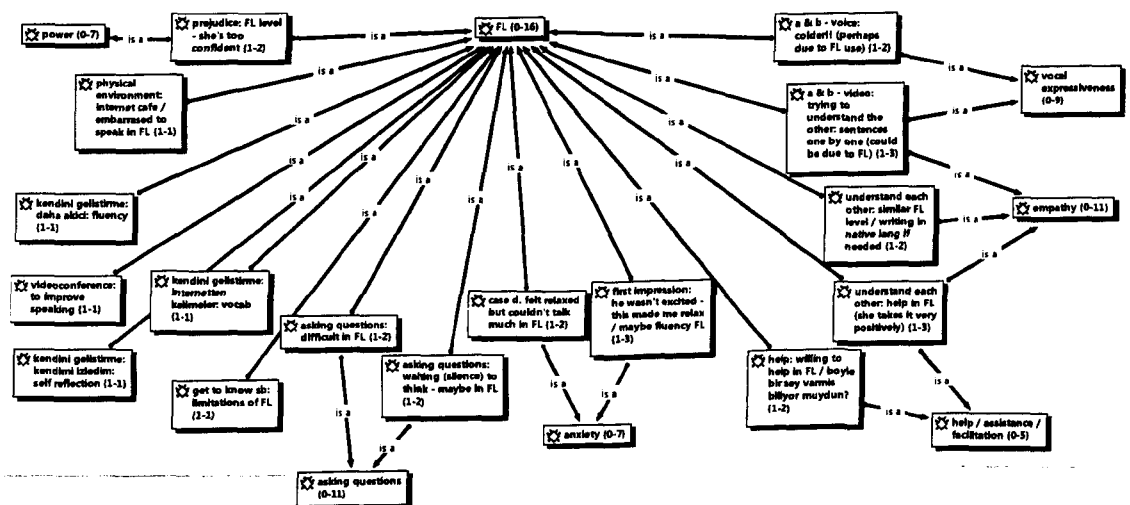
5.1.1 Emerging themes

What follows are the initial themes that emerged as I read, coded and labelled the codes for Case 1 interview and questionnaire data. My purpose was to generate similar network views for each case to explain the relationships. However, as my analysis developed, this way of presenting analysis resulted in many repetitions which were common to all cases. Hence, based on these initial themes, I then attempted a cross-case analysis, at the same time highlighting themes and codes which were peculiar to each case. The most prominent themes in Case 1 were foreign language; compliments and encouragement; power; body posture and positioning; online communication; immersiveness; trust; keep distance, avoiding being over familiar; help, assistance, facilitation; anxiety; humour,

teasing; empathy; self-disclosure, feelings; smile; tasks; visual expressiveness and vocal expressiveness.

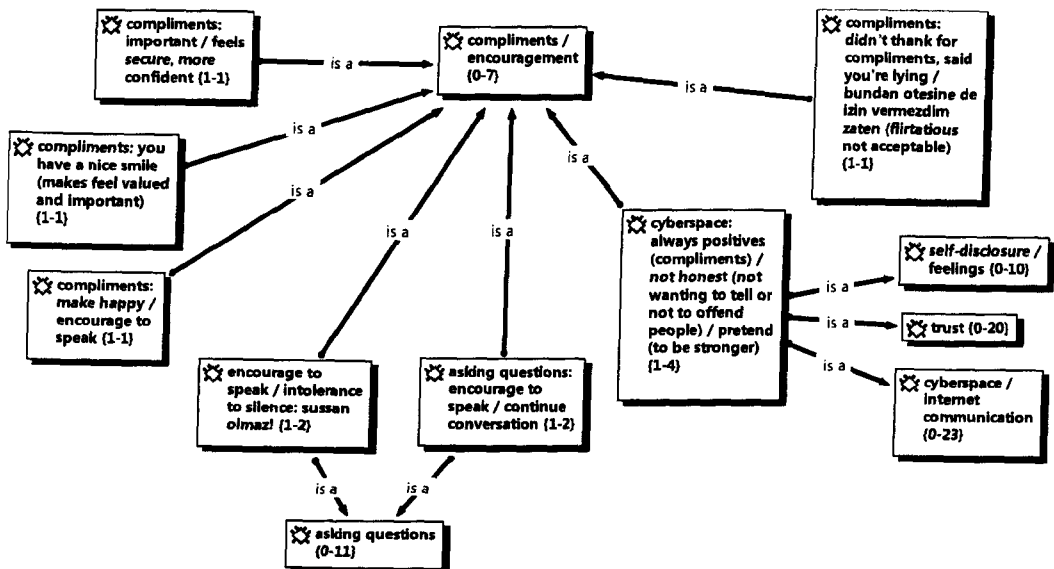
I explain these in turn and provide the network view for each theme. The network views present the code-family (theme) in the centre and show the relationship of the theme to the codes, which can also be related to other themes. By way of illustration, in the following network view for “foreign language”, FL in the centre is the code family, that is, the theme. Its relation to “help / assistance / facilitation”, which is another theme, is presented by two codes which were “help: willing to help in FL / *boyle bir sey varmis biliyor muydun?*” and “understand each other: help in FL (she takes it very positively)”. These two codes are not the actual data, but the codes I created to make sense of the parts of data, which I then grouped under several themes. The first code, in this example, illustrates how I used a mixture of Turkish and English to strengthen my analysis by using the expressive power of both languages; while the second code illustrates the way a code can belong to two themes, here which were “help / assistance / facilitation” and “empathy”. It was very easy to access the original quotes by double clicking on the codes and hence to double-check interpretations and relationships.

Foreign language



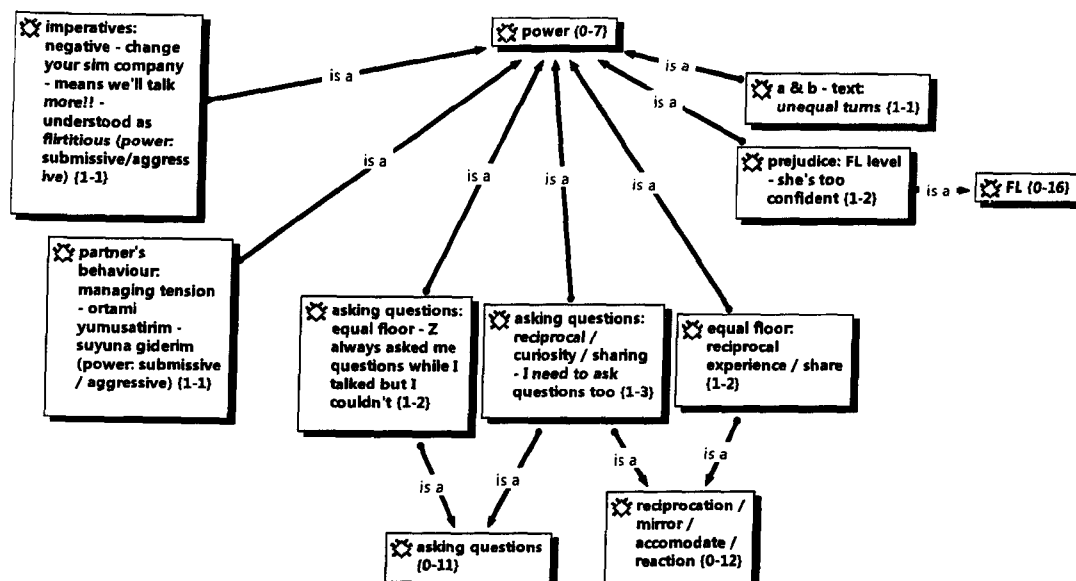
- Zeynep stated that she was a little prejudiced in the beginning; she did not expect that Deniz's language would be good enough based on the university he was attending. She was confident about her own language, which perhaps made her feel more powerful.
- For Zeynep, having similar English levels and providing linguistic help (and using Turkish if needed) facilitated understanding between them.
- Speaking in English in public (such as an internet café) might cause embarrassment.
- They both thought that videoconferencing sessions were beneficial for speaking, fluency and vocabulary development. Deniz looked up potentially useful vocabulary in online dictionaries before the sessions. He said he watched his recordings over and over again to notice his language mistakes and try not to make them again in the following sessions.
- Deniz stated that when he was talking Zeynep always asked questions, but he could not when Zeynep was talking. He said that he had to wait to translate the questions in his mind, so he frequently hesitated and thus missed opportunities and felt uneasy as a result. This could also mean that the number of questions might trigger feelings of dominance or submission.
- Reflecting on the pilot interaction between Aylin and Birsen, Deniz thought their interaction was colder when he listened to voice only, perhaps due to the fact that they were speaking English.

Compliments and encouragement



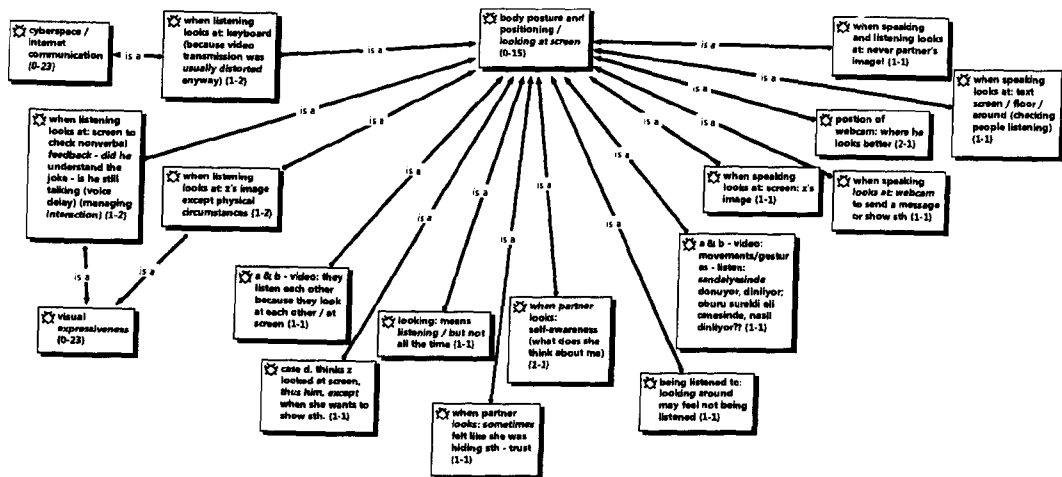
- Deniz and Zeynep appreciated compliments for making them feel secure, important, confident and valued. They felt happy and encouraged to speak when they complimented each other, especially on their linguistic skills.
- Asking questions was important as an encouragement to speak. Questions reduced the uneasiness created by silences and helped continue the conversation.
- They believed it was easier to lie or pretend to be better online. Thus, it was difficult to judge whether compliments were genuine.
- Zeynep perceived some of Deniz's compliments as flirtatious, such as when he complimented her smile. Thus, between opposite genders in the Turkish culture, while compliments on linguistic skills could encourage more interaction, personal compliments could be perceived as flirtatious and might impede interaction.

Power



- Zeynep initially thought her language would be better than that of Deniz based on the universities they were registered at. During their DVC interactions, she mentioned several times, in a humorous way, that her language was better.
- Reflecting on the pilot recording, Zeynep pointed out unequal turn lengths in the transcription.
- At various points, Deniz said he was not able to express himself well and ask questions. He thought he should have asked as many questions as did Zeynep.
- Deniz said that if his interlocutor was offended, he would be submissive and try to soften the conversation and eradicate any tension.
- Zeynep was offended by Deniz's suggestion to change her simcard company so that he can send her free texts. Deniz, perhaps teasingly, had used an imperative. Zeynep felt he was aggressive and he did not have the right to give orders.

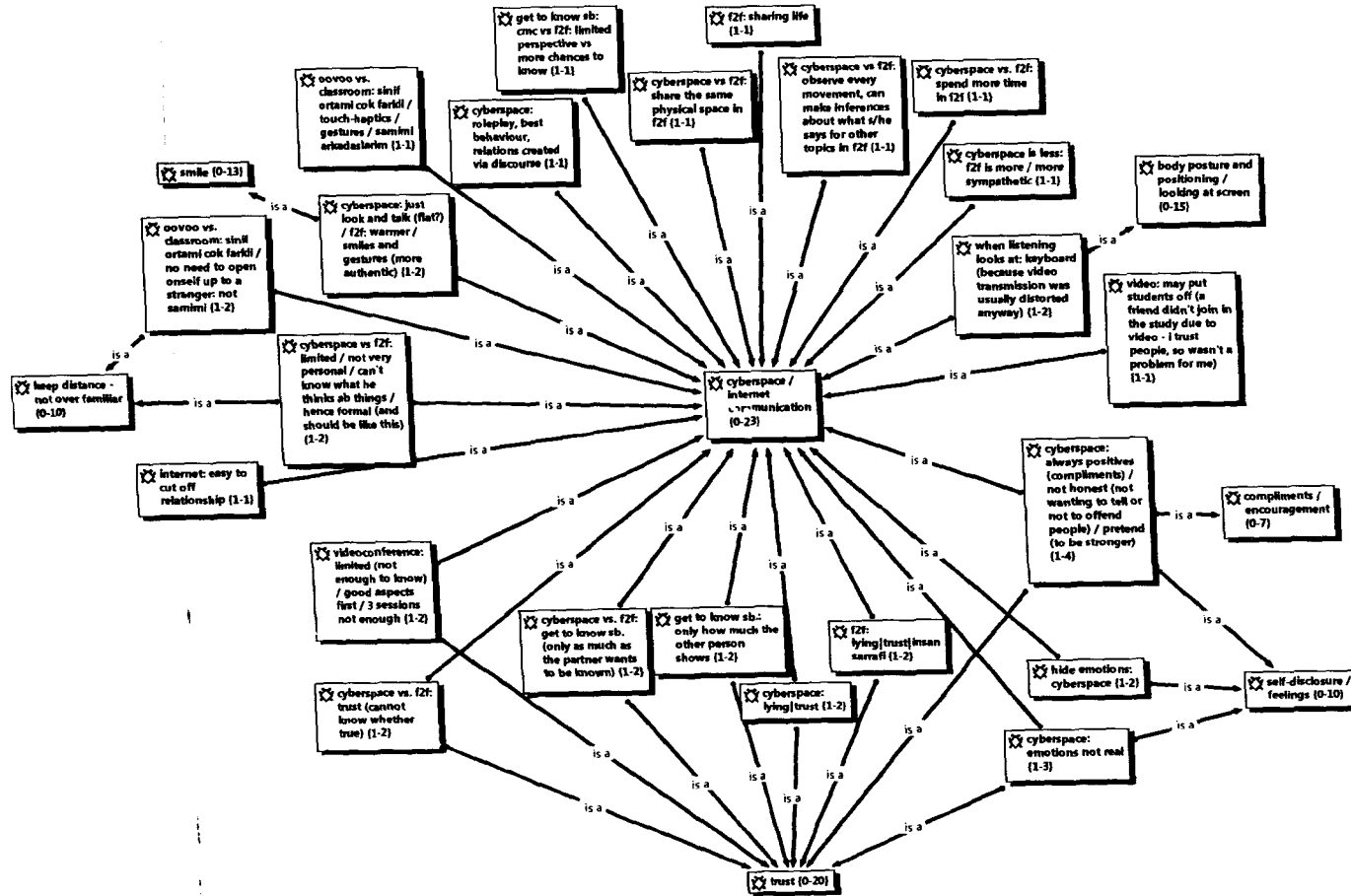
Body posture and positioning



- When listening, Zeynep said she usually looked at the keyboard, because the video image was usually distorted. When the video transmission was good, Zeynep looked at Deniz's image to check if he was still talking to clarify whether he had not heard her yet, or if he had not understood her joke. Other times she looked at the floor and around, sometimes checking whether other people in the internet café were listening.
- When listening, Deniz often looked at Zeynep's image.
- The position of the webcam was important; Deniz stated that he positioned it in a way that made him look better.
- Although gaze was not transmitted, they could guess where each other's screen was and decide whether they looked at their screen or not, which usually indicated listening. For example, when Deniz thought that Zeynep was looking at her screen, he believed she was looking at his image on her screen and was thus listening to him.
- When Deniz felt Zeynep was looking at him, he wondered what she was thinking about him.
- Deniz and Zeynep suggested that looking around while listening and turning around in the chair might either indicate listening, being relaxed or lack of attention.

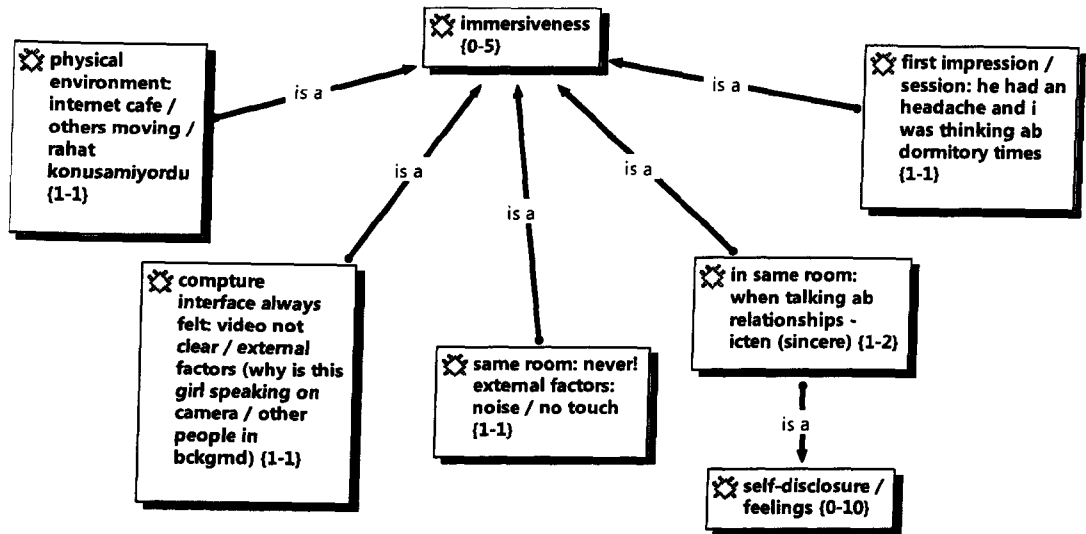
- Thus, video image could provide useful visual feedback.

Online communication



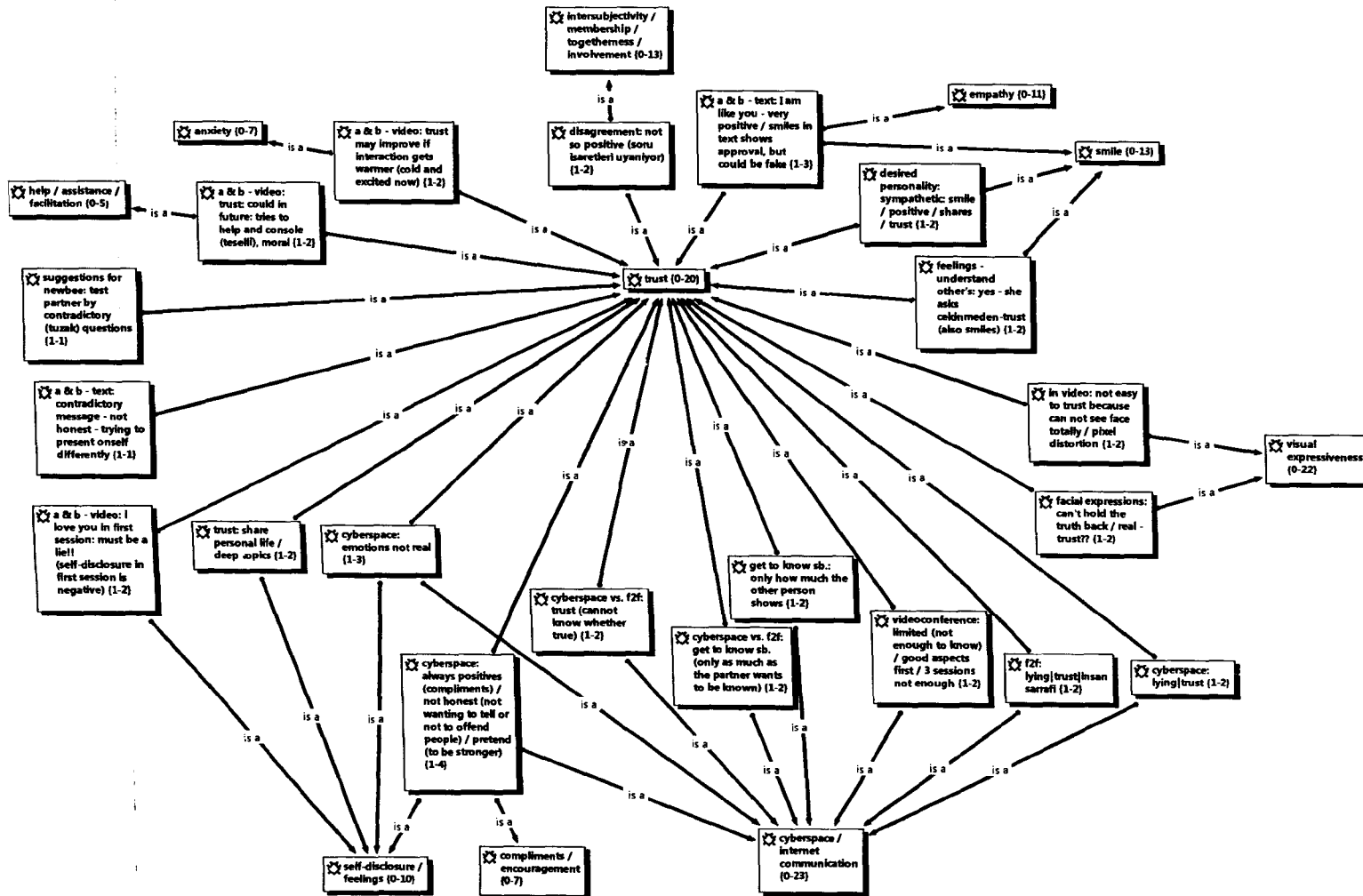
- The main issue with internet communication was trust. Both participants indicated that through internet one could only know another person as much as s/he wanted to be known.
- They also said three sessions were not enough, because people would tend to present their best aspects at first.
- Zeynep expressed that video may put some people off. She mentioned that one of her friends, whom she had invited to participate in the study, refused solely due to the fact that it involved video interaction. Zeynep said video was not a problem for her because she trusted people.
- Comparing internet and face-to-face (classroom) communication, Deniz and Zeynep argued that face-to-face communication was more pleasant because they could spend more time together, and have the opportunity to observe people's behaviour and reactions to other topics and events. They believed face-to-face communication was holistic. On the other hand, online communication was limited to fewer chances to get to know the people. They believed that people displayed their best behaviour and could role-play; relations were created via discourse. Classroom communication, in this respect, was different; you could see gestures and touch people, and with many of them an intimate and sincere relationship had already been established. Face-to-face communication was warmer with genuine smiles and gestures as opposed to "flat look and talk feature of online video".
- Zeynep was also cautious of online familiarity. She said while in the classroom you interacted with your close friends, you did not need to open yourself up or be sincere to a stranger online. She thought online communication was very limited; that it was difficult to learn about every aspect of the person, and thus interaction usually stayed formal and "it should stay formal". However, if things went wrong, it was also easier to cut-off an online relationship.

Immersiveness



- Both participants were at internet cafés; distractions in the physical environment (other people walking past, listening as they were speaking English) affected the extent to which they felt at ease. Distortions in the video image were also distractive.
- Zeynep stated that she never felt in the same room due to the background noise and lack of haptics; she was very much aware of the physical distance. On the other hand, Deniz felt as if they were in the same room when talking about their personal lives (when Zeynep was telling him about her boyfriend) which was also when he felt she trusted him.
- Psychological states and/or personal matters might also affect immersiveness in the interaction: Zeynep said she did not remember much about her first impression; she said she was thinking about the time the conversation would finish as she had to be at her dormitory at a certain time.

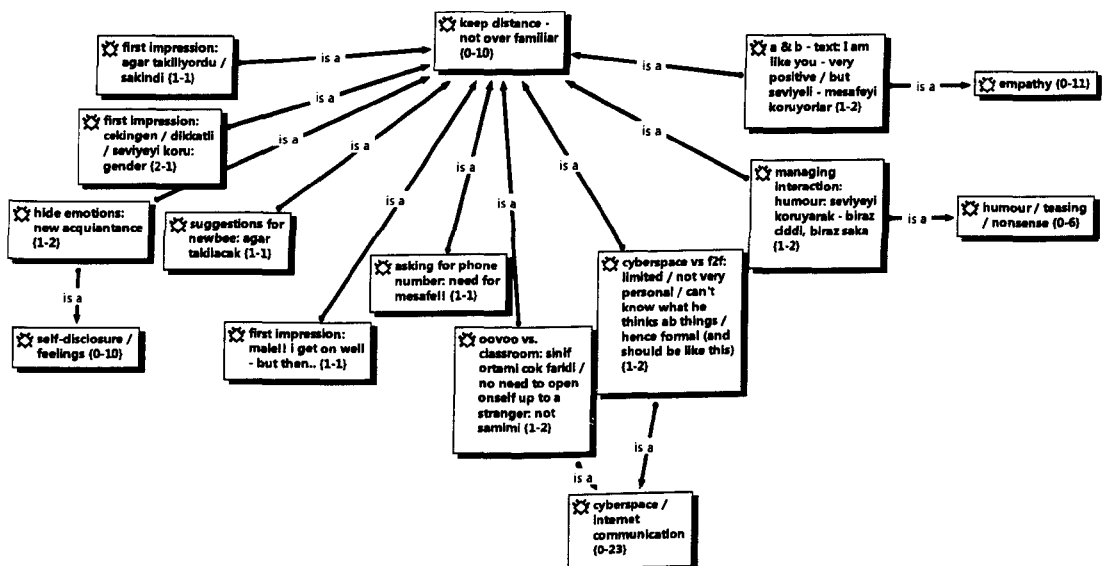
Trust



- Reflecting on the pilot interaction, Deniz thought Aylin and Birsen seemed a bit cold and excited. He felt that they might trust each other after a certain time, but not if the coldness persists. He also thought the last sentence of Birsen “can you mention a bit more...” implied willingness to help. He guessed the ensuing conversation would include advice, suggestions, consolation and help, after which trust might improve. Thus, for Deniz, warmth and providing help were indicators of trust.
- Regarding Aylin and Birsen’s text-only communication, Deniz found them distant, hesitant and not close. He interpreted the smiles in the transcription as smiling “at each other” (which was positive), but he also questioned the authenticity of the smiles.
- Zeynep also commented on Aylin and Birsen’s video interaction. She felt Aylin was contradicting herself when she said she was lonely but then switched to saying she liked being alone. Zeynep thought this was an attempt not to disclose her real self and pretend she did not care.
- Deniz trusted Zeynep because she expressed her thoughts without hesitation. Her continuous smile, positive outlook in life and sharing her personal life with him made him feel that she also trusted him.
- Deniz thought in the virtual world, compared to face-to-face interactions, the “authenticity of emotions” was missing. He thought it was easier to lie online because you did not really know and see (meet) the person. However, in face-to-face settings, he felt quite confident in predicting what the person really wanted to do and what s/he thought about him by looking into his/her eyes.
- Deniz mentioned that he usually complimented his online friends when they switched on their cameras, for example, by saying they had a beautiful smile. He said he would always highlight the positive in people.

- Despite talking about their personal lives in video conferencing sessions, Zeynep thought they could only open up to a certain extent and she felt they could not further their friendship in the three sessions.
- Both participants in Case 1 felt that people could not hold their real feelings back visually; their facial expressions would give them away. However, Deniz also underlined that it was mainly the case in face-to-face communication. Due to pixel distortions and the way Zeynep's camera was positioned (seeing her face from one angle only) her facial expressions were not as clear.

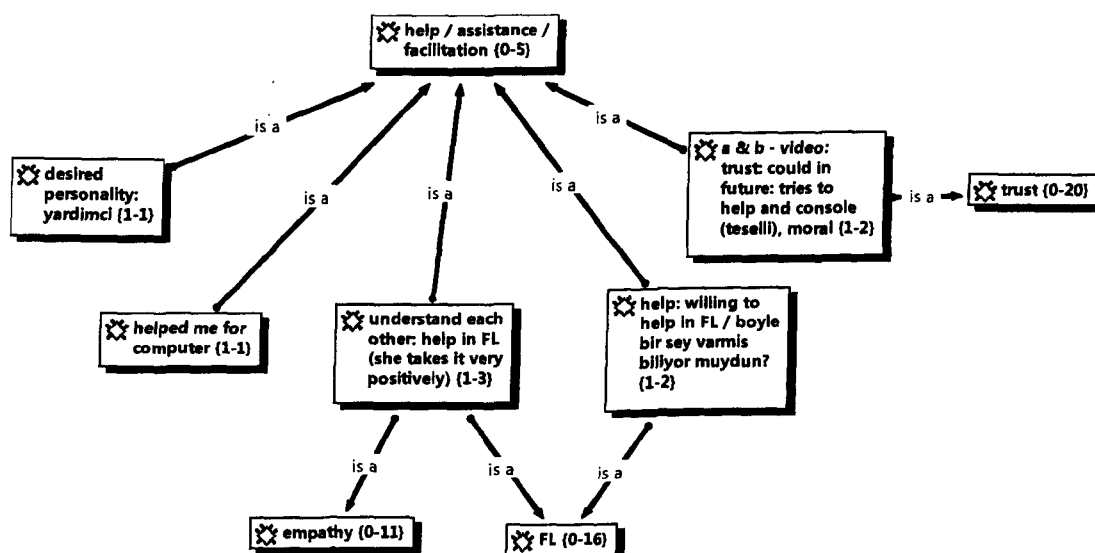
Keep distance, avoiding being over-familiar



- Deniz's first impression of Zeynep was that she was calm and cool ("*ağır takılmak*"). He said he tried to keep the balance and distance as much as he could especially because his partner was female. He avoided being over-familiar ("*laubal*") and made sure he did not offend her.
- Deniz considered keeping the distance a strategy to manage interaction. Reflecting on Aylin and Birsen's pilot conversation, he felt, although they smiled at each other, they were still formal.

- For Zeynep, the gender of her interlocutor was significant; the first thing she noticed about her interlocutor was that he was male. She said she got on well with boys, but she also implied that as their interactions develop, boys usually expected a romantic relationship. Commenting on her interactions with Deniz, Zeynep said they got close, but she felt the need to step back when Deniz asked for her mobile phone number.
- It is important to note here that despite both participants' perception that they kept distant and were formal, the DVC recordings show lots of smiles, self-disclosure and talking about their private life. There could be two interpretations of this: they might have felt the distance during their interactions which might not be visible to an outsider (observer); or they might not have felt comfortable with the closeness and ended up being more distant than they were in the earlier sessions, a final impression which might have marked their overall evaluation of the interaction.

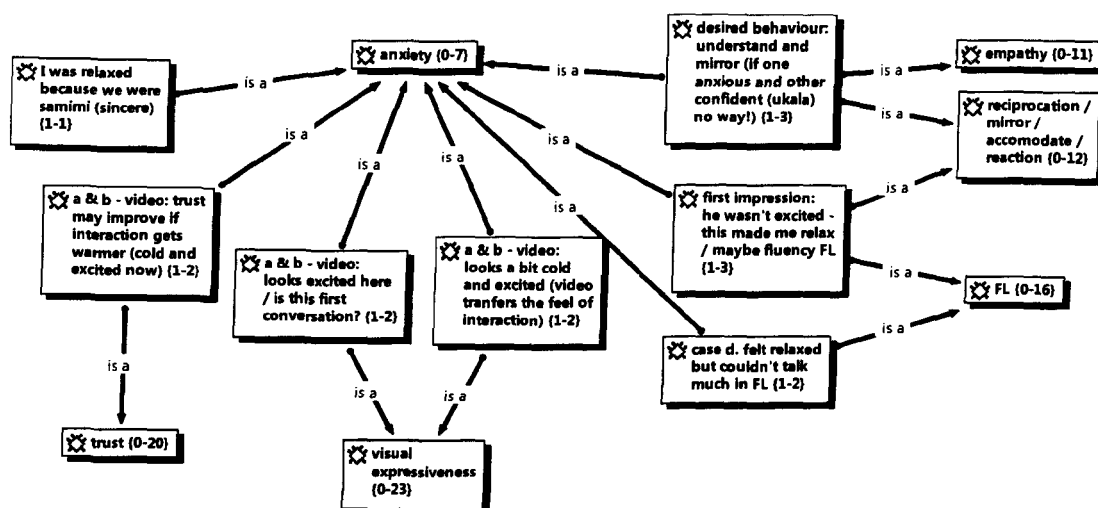
Help, assistance, facilitation



- Both Deniz and Zeynep stated that they helped each other either linguistically or on technical matters and both valued help as a positive feature in their sessions.

- Reflecting on Aylin and Birsen's interaction, Deniz stated that by asking questions Birsen wanted to help Aylin, console her and make suggestions.

Anxiety



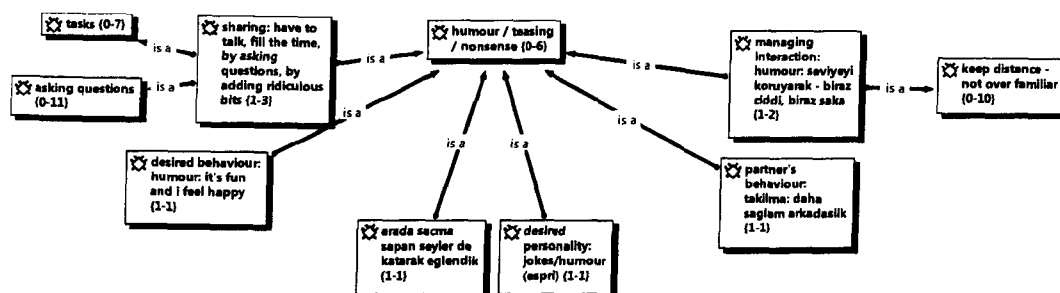
- Sincerity ("*samimiyet*") helped the feeling of relaxation, thus reducing anxiety.
- Relaxed and warm interaction might have improved trust.
- Anxiety was natural and acceptable in initial contact (first conversation).
- Although Deniz was not satisfied with his language use, he still felt relaxed.

Zeynep could feel that Deniz was not nervous and she mirrored his low level of anxiety. She also thought his fluency in English might have helped her relax more.

The level of foreign language may or may not be related to feelings of relaxation and anxiety.

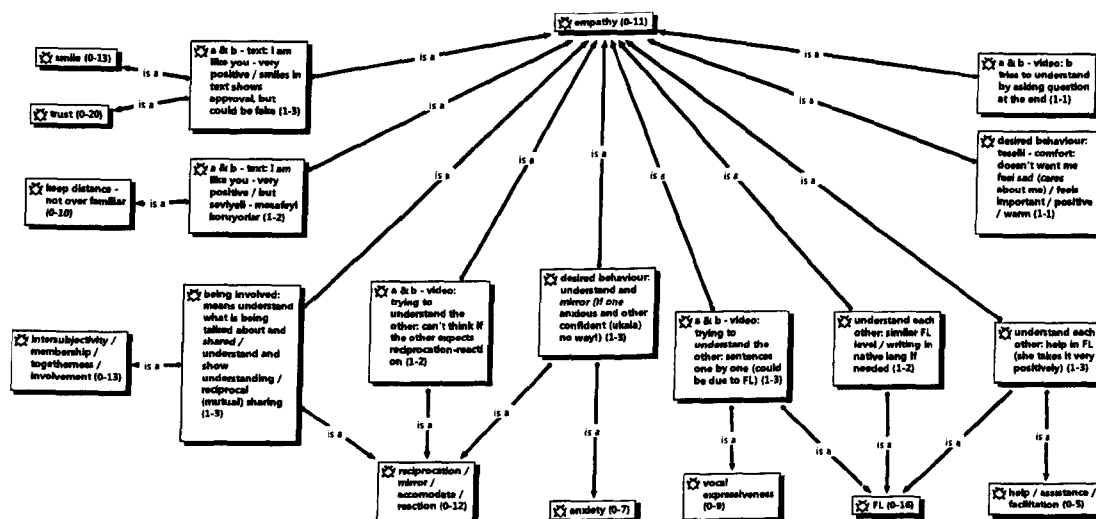
- Deniz believed that anxiety should be mirrored; partners should show empathy and their anxiety should be at a similar level; if one is anxious while the other is confident, that could ruin the relationship.

Humour, teasing



- Humour was a good device to fill up the time, make interactions fun and interlocutors happy.
- Humour and teasing was not limited to jokes, and Zeynep considered banter or silly jokes as funny additions to their conversations. Deniz also valued humour and jokes; he said when he started a humorous conversation Zeynep followed suit. According to Deniz, humour created an informal environment, without which their friendship would not have advanced.

Empathy

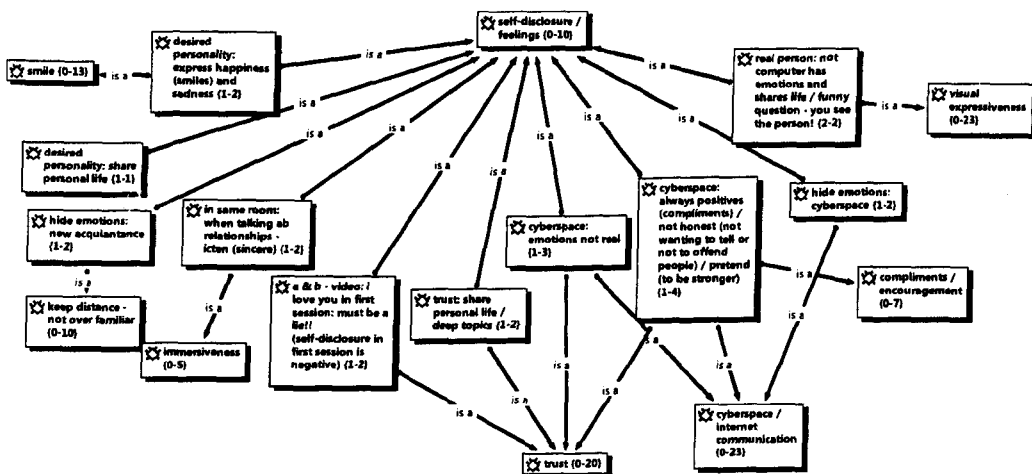


- When watching the video of the pilot extract by Aylin and Birsen, both participants in Case 1 judged the expression “I am like you” to be very positive. Deniz also added that accompanying smiles indicated approval, despite the possibility of being artificial. For Deniz, Birsen’s attempt at the end to elicit more about Aylin’s

friends by asking 'Can you tell me more...?' was an indication of willingness to listen and understand. However, he thought Birsen's answer "thank you" to Aylin's self-disclosure "I like you" was an inability to reciprocate and anticipate Aylin's possible expectation of a similar self-disclosure.

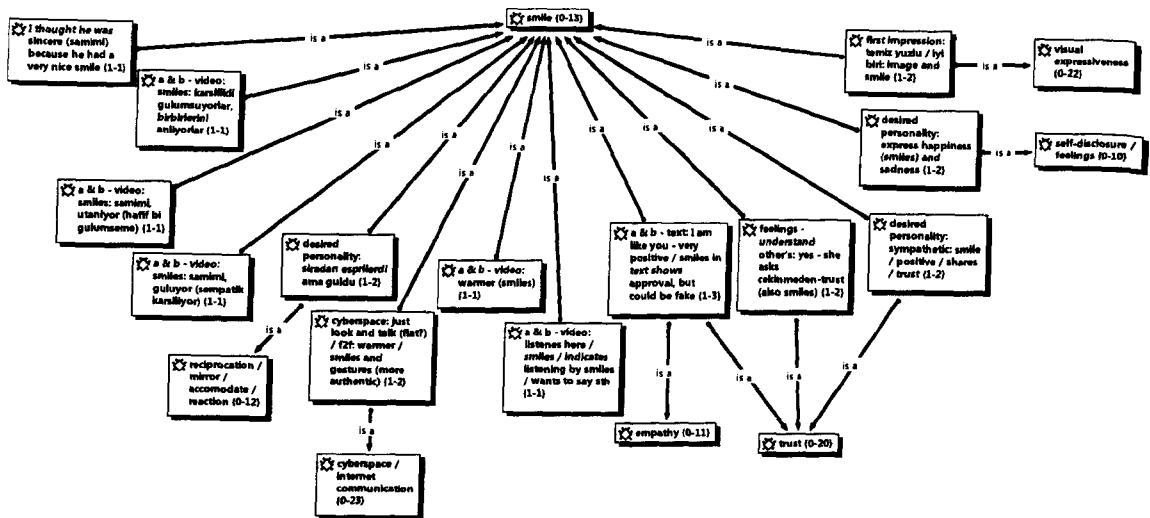
- Empathy was related to mirroring, accommodation and reciprocation. For Zeynep, mutual understanding of the conversation was essential for feeling involved. For Deniz, emotional states, such as anxiety, should be mirrored.
- When Deniz thought he had not performed well in their FL session and expressed this verbally to Zeynep, she tried to console him by being empathetic. Deniz felt important and being cared for. He reflected on this instance very positively and thought Zeynep was really warm.

Self-disclosure, feelings



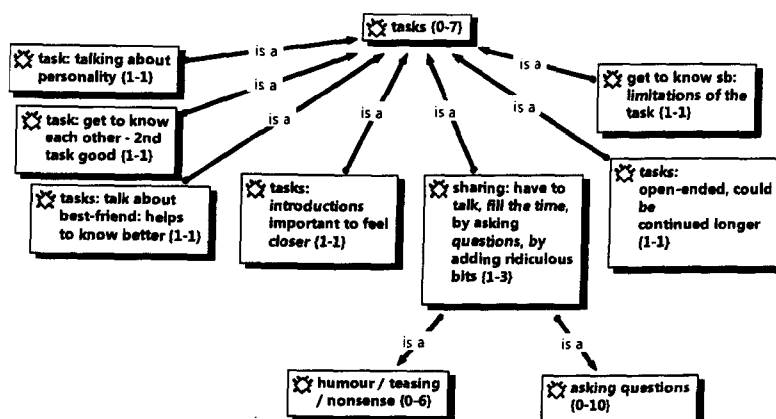
- Deniz was very pleased that Zeynep shared her personal life which was unexpected and implied that Zeynep trusted him. He felt as if they were in the same room with Zeynep when they were talking about "deep topics" i.e. when she told him about her boyfriend.
- Regarding Aylin and Birsen's vide communication, Zeynep found it artificial when Aylin said "I like you" in their first conversation.

Smile



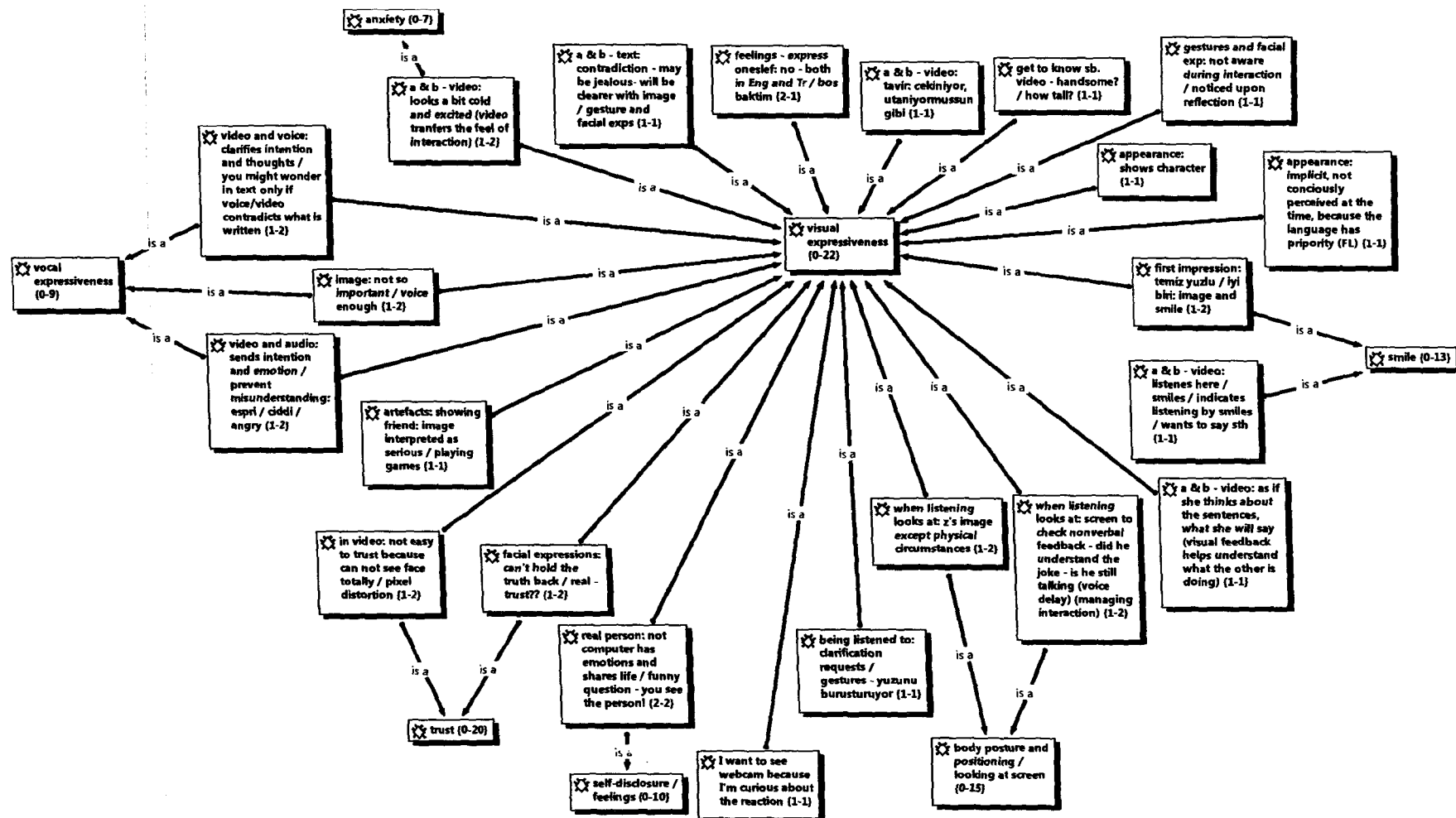
- Zeynep thought Deniz had a very nice smile which she found quite sincere.
- Regarding Aylin and Birsen's video in the pilot interaction, Zeynep commented that they understood each other, which was obvious from their reciprocal smiles. For her, their video image implied that they were sincere ("samim") and the smiles indicated embarrassment as well as sympathetic approval.
- Deniz mentioned that Zeynep's smile sent him very positive vibes and helped him to understand her better. With her nice smile, she looked like a good person with a clean face ("temiz yüzlü").
- Deniz found face-to-face settings warmer, because you can gesture and smile. On the other hand, "in online communication you relax in your seat too much and just look and talk".
- Regarding Aylin and Birsen's interaction in text-only, Deniz thought their smiles could be artificial. However, in video communication, he could identify a warm smile. Also, in video communication, he thought reciprocal smiles implied that they understood each other.

Tasks



- Both participants in Case 1 especially liked the second task where they talked about their personalities and their best friends. Both thought it was good to get to know each other better.
- For Zeynep, the first task, introductions, was also important to get to know each other and feel closer.
- Zeynep thought the tasks helped them to “fill up” a certain amount of time, which they did talking around the topics assigned as well as adding humour and banter. She evaluated the open-endedness of the tasks positively; they could continue as much as they wanted by branching out the topics. Yet, Deniz felt a little restricted, as they tried not to divert much from the topic assigned.

Visual expressiveness

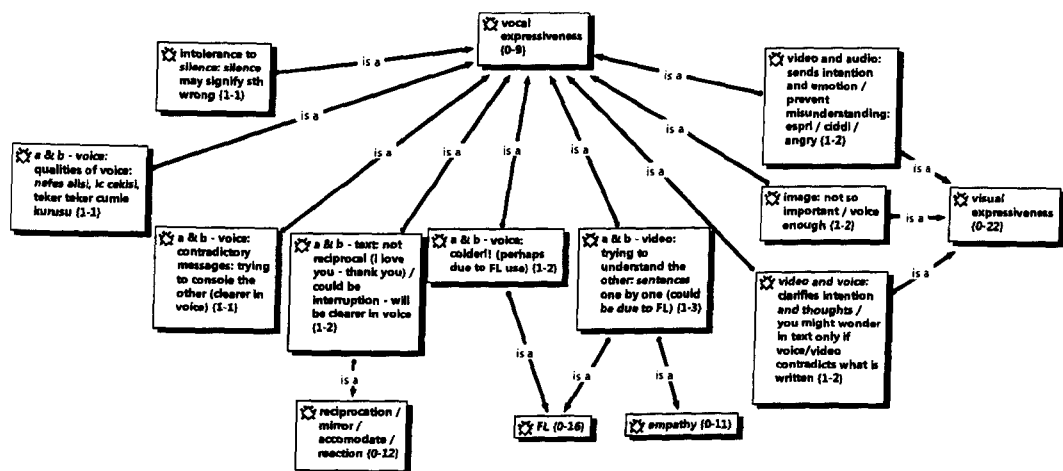


- For Deniz, text-only interaction was not enough. He would question whether there was any visual message contradicting the verbal message. He also mentioned that he would be curious about his partner's facial expressions and reactions. Voice (higher or lower pitch) was also important for him. Zeynep, on the other hand, did not think that the video was very important. While she acknowledged the effectiveness of gestures and facial expressions, she thought they would have talked about the same things and made the same jokes without the video. However, she thought text-only interaction could cause misunderstandings, especially when making jokes, whereas tone of voice helped clarify whether the expression was a joke or a serious one.
- For Zeynep, her partner's previous life experiences and emotions made him a real person. She found it ridiculous to discuss whether she thought her partner was a real person, because she literally 'saw' him. (NB: I removed the question in Phase 2.)
- Deniz particularly wanted his online friends to switch on the video, because he was usually curious about their reactions. During his DVC sessions with Zeynep, he was able to spot misunderstandings and rephrase as necessary based on Zeynep's facial expressions even when she did not verbally indicate a problem.
- Reflecting on Aylin and Birsen's pilot video communication, Deniz could infer from the video that Aylin was trying to construct the sentence in her mind or looked as if she was about to say something.
- For Zeynep Deniz's physical appearance was important in forming personal impressions about him. She found his smile very sincere and said that she did not pay attention to his being handsome. She said she was curious about his height. However, she emphasized that she did not notice any of Deniz's physical characteristics and facial expressions when they were talking because she was busy thinking about what she would say next. She said she only noticed those

features when watching the recordings. Zeynep could not focus on the foreign language and the visual elements at the same time.

- Deniz said he was not sure if Zeynep was able to understand him completely. He mentioned difficulties in expressing himself in English and having an 'empty gaze' (without any expression). He remembered only saying yes and nodding his head. He was sometimes disengaged ("*dalmışım*").

Vocal expressiveness



- When Deniz was silent, Zeynep asked if he was all right. Hence, silence is not tolerated much; it might mean there is something wrong.
- Reflecting on Aylin and Birsen's voice communication in the pilot study, Zeynep said their breathings, sighs, articulating words one-by-one helped Zeynep understand how they felt. While in text-only, she had thought Aylin was contradicting herself, after hearing the sound she thought Aylin was trying to console Birsen.
- Reflecting on Aylin and Birsen's text-only communication, Deniz was not sure if Birsen was interrupted and lost her turn after she replied with a "thank you" to Aylin's "I like you". He thought it would be clearer in voice. In their voice only communication, Deniz felt the interaction was 'cold' not 'warm'. In their video communication he thought articulating sentences one-by-one could be due to low

proficiency in English. He also said both voice and video were important in clarifying contradictory verbal and nonverbal messages.

- According to Zeynep, voice was more important than video. However, audio and video also helped to prevent misunderstandings and clarify whether one was really angry or just teasing.

5.1.2 DVC session summaries and extracts

Here I turn to session summaries and the analysis of extracts for Case 1. Although I wrote up summaries of each session for each case, I only include summaries for Case 1 for illustrative purposes. The summaries for each case I obtained in the end varied in length and detail based on the number of instances mentioned by the participants and salient features that emerged in observations. The detail of transcription also varied in session summaries as they were working documents allowing in-depth exploration of the cases.

The conversation tasks assigned to participants in Phase 1 are presented in Appendix 4.

Session 1

The task assigned for session 1 was very open-ended and could take whichever direction the participants wished. They were requested to ask their partner about three topics such as family life or hobbies, and to think about three significant numbers in their lives, such as 36: shoe size. Their partner's task was then to guess what the number signified.

Flow of session 1:

- The conversation starts with me present, explaining the task and saying I'll be online if they needed help.

- After I leave the session, they present their excuses to each other; Deniz had rushed home to be on time for the session and is now getting a headache and Zeynep is uncomfortable being in a crowded internet café.
- They start talking about each other after checking the sound. They talk about their ages, where they are from, languages they know, their university and where they are staying, Erasmus programme and which countries they wish to go to, their success on university courses, their boyfriends, girlfriends, and further off-task topics. their plans to move to a shared house with friends the following year, their immediate physical environment, weather and the city where they live.

One observable feature of their communication is that it is full of interruptions, sidetracks, teasing and smiles. Extract 5.1-1 below happens in the first 15 minutes of their first encounter and is not the first time they humorously complain about interruptions. In this extract Deniz and Zeynep talk about Erasmus exchange programmes at their universities and they both talk about which countries they would like to visit.

Extract 5.1-1 You are interrupting me!

Lines	Verbal communication	Nonverbal communication
1	z. which country do you want to go?	Very quickly
2	d. [err (.) the first]	
3	z. [which country do you want to go]	
4	d. the first country you know (1.0) England (.) Britain	slowly
5	z. England (.) Hmm (x) (x)	
6	d. yes (.) and then (.) may be (.)	
7	z. [(xxx)]	Interrupts but d. continues, Z stops
8	d. err denmark or (.) err holland (.) or another [(x)]	Shakes head (thinking about countries)

9	z. [hollan] (.) [(x programme)]	
10	d. [or I can go] near to my [(x)]	
11	z. [Deniz I'm] I'm going to speak ((smiles))	Putting her hand on her chest implies that she really means it. Smiles and downward head movement soften the meaning.
12	d. YOU are interrupting me! (.) you can see [thi:s] ((smiling))	Smiles again soften the meaning
13	z. [no You] are interrupting me[	Gets more serious – no smiles
14	d. but [I am speak]	serious
15	z. [no (you are interrupt)]	
16	d. fluently ((smiles)) okay you [can go on sorry]	Smile softens again and D accepts submission, apologises
17	z. ((smiles)) [okay go on] go on	Z retreats as well and gives up the turn
18	d. no (.) [you you will go on] ((smiles))	Soft tone of voice and smile implies he really means it and not offended
19	z. [I'm just kidding] I'm just joking ((smiles))	Saves face, distances herself from the serious expressions earlier
20	d. no (.) you will go on ((smiles)) sorry (.) [you can g]	Smiles, apologizes again, smiles end
21	z. [okay erm] ((smiles)) I wanted to say that err our erasmus programme doesn't include england and america	Z takes the turn.

Between lines 2-10 there are several interruptions which are caused by Zeynep's attempt to take her turn. Despite interruptions Deniz continues and in line 11, Zeynep verbally directs attention to interruptions and asserts that she wishes to take the floor. In line 12, Deniz disagrees and with an emphasis on "you" declares his objection. Meaning is softened by the tone of voice and smiles. In lines 13-15, however, the verbal messages lack those paralinguistic cues and the argument over turn takes on a more serious quality until Deniz apologises and gives up the turn in line 16. In lines 17-20, Zeynep accepts his submission, but she tries to distance herself from the victory over winning the turn. Deniz insists on giving up the turn and in line 21 Zeynep resumes the conversation. Due to audio delay, they interrupt each other further on in the session and argument over who would take the floor becomes a source of humour and teasing.

It was quite important for Zeynep to be involved and not to get bored. She believed the time allocated for the tasks meant that they had to find ways of filling up the time. Thus, she said they asked each other questions and talked about whatever they could think of as well as using humour and banter to make conversation more enjoyable. Extract 5.1-2 happens towards the end of session 1 between minutes 40:26 and 42:48. It is difficult to identify a main topic in these two and a half minutes, but the extract is marked by humour and banter based on shared knowledge of culture and claiming dominance regarding linguistic skills. I provide the transcript with my explanations and interpretations.

Extract 5.1-2 I will fight you with my English knowledge

Lines	Transcript	Explanation
1	z. (.) erm one day may be I come err [NameOfCity2] or [NameOfCity1].	To visit D in either city 1 or 2.
2	d. him?	
3	z. and may be [you:]	
4	d. [it will] be nice	

5	z. you we (.) go out [go (out) together]	
6	d. [with your darling] or alone?	Teasing, referring back to Z's boyfriend she mentioned earlier.
7	z. ((laughter)) ((gesture))	Moving her right index finger, implying she understands the tease and suggesting he is cheeky. (Figure 8a)
8	d. or with your frie:nds?	Emphasis on friends
9	z. with my boy friend ((laughter))	
10	d. ((laughter)) [okay]	
11	z. [I really] want to go [there]	
12	d. [don't come] (.) don't come (.) if you will come alone come (.) but (.) if you'll come with boy w with your boyfriend don't come ((laughter))	D uses a serious tone, but laughter at the end softens the expression. It is a bit flirtatious and what is really implied is ambiguous. Z's gesture and facial expression shows surprise and "ah, you say so!?" (Figure 8b)
13	z. ((laughter))	Suggests she takes it as a joke
14	d. ((laughter)) I don't want you ((laughter))	
15	z. ((laughter)) I will say (.) I will say you to Yunus Emre and he will err hit you he will he will (.) err: ((looking towards the ceiling))	Yunus Emre is the name of her boyfriend. Childlike language where girls/boys complain to their fathers and say he will beat you.
16	d. fight me?{	D understands Z is trying to find the right word as Z is looking upwards. D correctly complements Z's sentence before she asks for it. This emphasises the role of shared linguistic background

		in meaning making.
17	z. [dövmek? (.) yes [fight you]	Z uses Turkish word, which D has just provided the English.
18	d. [but] I am a Arabic person (.) I and I am so so ((inbreath)) (.) powered [and I am so strong]	Slowly. Continues the joke
19	z. (((giggles)) he is actually)]	
20	d. and here is every you know [NameOfCity1] is very (.) very very very bad place for in this (.) err term you know?	People from [NameOfCity1] are stereotyped as not being very polite and tend to quarrel a lot, sometimes using weapons.
21	z. him hi hi	
22	d. in terms of this and	
23	z. he is from	
24	d. we use knife (.)	
25	z. ((smiles))	
26	d. we are a murderer ((laughter))	
27	z. ((laughter))	
28	d. we can kill him: [and send to you]	
29	z. [murderer:: murderer::]	Acts out.
30	d. and you will cry (.) what (.) happened Deniz:z? what did you do:? oh: shit ((laughter))	Acts out, too, using similar phrases and intonation frequent in Turkish movies. Z covers her face with a piece of paper.
31	z. ((laughter)) Deniz [Deniz]	
32	d. [I don't believe]	
33	z. I will fight you with my English knowledge ha? I will fight you with my English knowledge ((laughter)) do you	Replik = line or catch phrase Avrupa Yakası = name of sit-com

	know this <i>replik</i> from <i>Avrupa Yakası</i> ?	
34	d. him?	
35	z. <i>seni hani şey erm mesela seni var ya paramla döverim</i> ((laughter))	Z acts out the character and the catch phrase in Turkish to make sure he understands. She gestures towards the camera. Translation: "you, well, erm, for example, you know I can beat you with my money" (Figure 8c)
36	d. hi I know (.) you can you can b b beat me (.) hit me with your English (.) [and I can hit]	D. translates it into English, as he usually does whenever Z uses Turkish.
37	z. [knowledge]	
38	d. I and and	slowly
39	z. [(know)]	
40	d. and I can hit you with my Arabic knowledge ((laughter)) what happened? what happened? ((laughter))	With emphasis, like a child's game of power. D says what happened with an intonation that suggests 'you lost'. It is a direct translation of a Turkish phrase (<i>N'oldu?!).</i> Cultural and linguistic background is probably needed to understand the expression.
41	z. ((laughter)) ((covers face with a piece of paper)) it doesn't really interest me Deniz ((gaze towards the camera))	Covering face might indicate embarrassment or accepting defeat. In order to regain power she switches to "I'm not bothered" or "I don't care" (Figure 8d)
42	d. ye:s (.) (inbreath) [as you see as you see as] you see	





43	z. [it doesn't really interest me Deniz] ((gaze and pointing towards the camera))	
44	d. I know English and you know English but I know Arabic but you don't know Arabic I can (.) hit you (.) ((laughter))	Very slowly and clear articulation. D claims dominance despite Z's disclaimers in lines 41 and 43.
45	z. ((laughter)) ((silence))	Smiles and silences end the event
46	d. [[[outbreath]]]	
47	z. [everybody in (this cafe)] are looking is looking at me	Z. continues with a new topic
		
a		b
		
c		d

Figure 8 Screenshots in Extract 5.1-2

I have provided several explanations and interpretations in Extract 5.1-2. I now wish to highlight certain aspects and provide a summary of how banter and power develop in the extract. Deniz initiates banter in line 6 when he refers to Zeynep's boyfriend to tease her. He seems to intend it as a joke, but his serious tone accompanied with smiles and Zeynep's reaction with giggles might easily be interpreted as flirtatious. For meaning making and negotiation, they utilise nonverbal messages. For example, in line 15 Zeynep looks upwards and Deniz correctly interprets this as an indication of thinking for a word to complete her sentence. Also, in lines 41 and 43 Zeynep gazes towards the camera and uses her gestures to strengthen her messages that she does not care.

They also rely on their cultural and linguistic background to negotiate meaning. In line 16, Deniz can predict the word Zeynep was looking for based on shared culture and linguistic background. In lines 18-28, Deniz establishes himself as a strong person by referring to geographical stereotypes. In lines 29-30, both Zeynep and Deniz continue the banter Deniz started in line 18, and they act out a scene where Deniz kills Zeynep's boyfriend, using very typical intonation and phrases from Turkish movies. Likewise, in lines 33-35, Zeynep uses a catch phrase from a sit-com to establish dominance in terms of her linguistic skills, at the same time distancing herself from the claim by putting it in a humorous way. Henceforth, linguistic skills become an issue of dominance.

In line 36, Deniz translates the catch phrase from the sit-com, as he usually does whenever Zeynep uses a Turkish word or phrase. Then, in lines 36-44, Deniz positions himself as equally powerful in terms of English and even more dominant as he also knows Arabic and thus, "wins" the argument over linguistic power. All happens in laughter and giggles, so the seriousness of each party is unclear. Humour and banter give them the opportunity to save face by saying "I was just joking" in case one of them is offended. The extract ends with smiles and silence in lines 45-46, in line 47 Zeynep moves on to a new topic.

Session 2

The topic of the second task was personal characteristics. The participants were given a list of adjectives they could use to describe themselves and an internet link which provided information on horoscopes. The task also required sharing of information about their best friends' characteristics.

Flow of session 2:

- They start in Turkish checking whether both have started recording and discussing the task. They also briefly talk about the previous night (which was New Year's Eve), but then move on to the task agreeing to talk more about it if they have time after the session.
- Deniz starts talking about his personality; that he is helpful, intelligent, honest, funny, and patient.
- Then Zeynep tells about her personality; that she is cheerful, attractive, intelligent, energetic, and independent.
- Deniz tries to guess the characteristics of Zeynep's best friend; attractive, not so optimistic, creative, helpful, cheerful, smiling. Zeynep tries to show her best friend from the screen of her mobile phone, but without success.
- Zeynep wants to guess the characteristics of Deniz's best friend and Deniz shows him on the webcam; he was playing a computer game at a desk next to him. Her guesses were angry, trustworthy, helpful, intelligible, optimistic, and hardworking.
- Zeynep tries to finish the session by saying it has been 40 minutes which to her mind was enough for the task. Deniz disagrees and mentions that I had told him the activity about drawing a pig was fun. But Zeynep refuses to do it saying she cannot draw a pig.
- The conversation almost comes to an end before Zeynep asks Deniz what he did the night before, i.e. New Year's Eve. Deniz says he was drunk and Zeynep says

she never drinks because of her religious views. Accidentally, about this time, I send Zeynep a text message checking how they were getting on.

- Zeynep finishes off quickly saying she does not have much time; she needs to wait for the recording to process before leaving the internet café. She says they could talk more later on their own when they have the time after the recording is finished but this never happens.

Thus, session 2 started with off-task talk which was an immediate topic for both participants, that is, the New Year's Eve. They left the topic unfinished, and went on with the task as Zeynep was concerned about the time she had at the internet café. The participants performed the task by talking about their own characteristics and guessing the characteristics of their best friends in turn. Then, they discussed the next stage of the task, that is, drawing a pig online, and agreed to skip it. Before the session ended, they resumed their off-task talk about the New Year's Eve and shared their religious beliefs about drinking alcohol. The session ended with Zeynep's request to end the session and continue later on as she had to leave.

Session 3

The third task asked participants to talk about what they like doing in their free times and their favourite places in their hometowns. They were then asked to organise a weekend for their partner if s/he were to come and visit them.

Flow of session 3:

- They start by checking the sound. Then, Zeynep shows Deniz her black nail polish and Deniz says he finds it very attractive. They talk more about each other's looks and Deniz even asks Zeynep to stand up as he wants to see her in full.

- Before they start, Zeynep checks if Deniz can understand her pronunciation (showing off a bit). They then continue on text, because Deniz's computer is not working well.
- When Deniz is back on another computer, they start with some banter, then start the task and talk about their daily routines with Zeynep asking questions and Deniz responding. Deniz deals with a boy in the café who looks at the screen.
- Zeynep starts talking about her typical day.
- They talk about their favourite singers. Zeynep continues talking about the places they go with her friends. Then, Deniz switches back to singers.
- Zeynep wants to finish talking as the task is over. Deniz interrupts feeling he has not spoken enough and asks Zeynep to tell him where she would take him if he came to [NameOfCity3].
- After telling him about the places, she then asks Deniz to talk about the places he would take her if she visited [NameOfCity1].
- Finally, Zeynep tries to wrap up again, but Deniz says he was really bad this time. Zeynep consoles him.
- Deniz opens up the topic of cooking. Zeynep tries again to wrap up "I want to finish now, I'm so hungry".
- Deniz shows his watch and wristband. Zeynep shows her necklace and ring. Another attempt from Zeynep to finish "it has been an hour". Deniz suggests continuing five more minutes and then finishing the recording. Zeynep agrees.
- Zeynep asks about Erasmus. Deniz says they have already talked about it, but Zeynep says she has changed plans since then and wants to talk more about it.
- Zeynep explicitly attempts to close once more ("let's finish it, ha?"). Deniz asks "are you sure?" She promises to speak on MSN messenger later on (promise for a prolonged friendship, referring to future contact). Deniz asks for Zeynep's phone number, she is ready to give it, but Deniz stops her saying that she should give it after the recording.

- Before they stop the recording, Deniz thanks me, Zeynep thanks Deniz. He wants her to say “we love you Muge”, and looking at the screen he says “I love you soo much more than Zeynep”. Zeynep looks a little offended.
- They both wave and the conversation ends strangely.
- After they stop the recording themselves, they continue in Turkish. Deniz asks for her phone number in English. Zeynep switches back to Turkish. Further on Deniz switches codes, “*bir şey soracam* (I want to ask you something) are you jealous?” ... Zeynep replies in English, “I have got lots of close male friends and you are one of them” and she switches back to Turkish. They switch off the video conversation quickly as they need time for the recordings to be processed.

I now focus on three extracts from this session illustrating how intersubjectivity and use of artefacts define membership, involvement and power. I find it useful to note here that in the interview, Deniz said it was important for him to share interests with the person he spends time with and that they would be closer, like two friends supporting the same football team. Involvement was also very important for Zeynep; she said she would be bored if she was not.

After about half an hour in session 3, while Zeynep is talking about her daily life, she mentions that music is part of her life and wants to talk about the singers she listens to. Extract 5.1-3 starts with Zeynep listing her favourite singers. I provide a transcription of the first 40 seconds.

Extract 5.1-3 Favourite singers 1

Lines	Verbal	Nonverbal
1	z. okay I want to talk about the singers I listen (.) if you want	
2	d. singers?	

3	z. (x)	
4	d. yes yes okay which	Head nod
5	z. err: for example, (x) Evanesence [(James Blunt)]	
6	d. [you are right!] [perfect]	Visually expressive: eyes closed, index fingers pointing the camera (Figure 9a)
7	z. [jams blunt]	Overlaps with D's previous turn "perfect" and not acknowledged by D.
8	d. she is my my my my best best singer I love her so much so so much	Uses hand gestures: elbows placed on table, brings hands forward (Figure 9b), then closes eyes and brings both hands together in front of his face (Figure 9c)
9	z. ((singing)) when you cry I'd wipe away all [of your tears]	
10	d. ((singing)) [all of your tears]	Eyes closed
11	z. ((smiles)) [söyleyebilirim bütün şarkıyı]	Translation: I can sing the whole song
12	d. ((singing)) [(find a way all of your] ((smiles)) n: no turKl: SH ((gesture))	D responds to Z's Turkish expression which overlaps with his singing. No Turkish is emphasised with intonation and hand gesture (pointing to the camera with both index fingers)
13	z. [then (James Blunt)]	Overlaps with D's turn and not acknowledged.
14	d. [shame on you]	D still continues with previous turn.

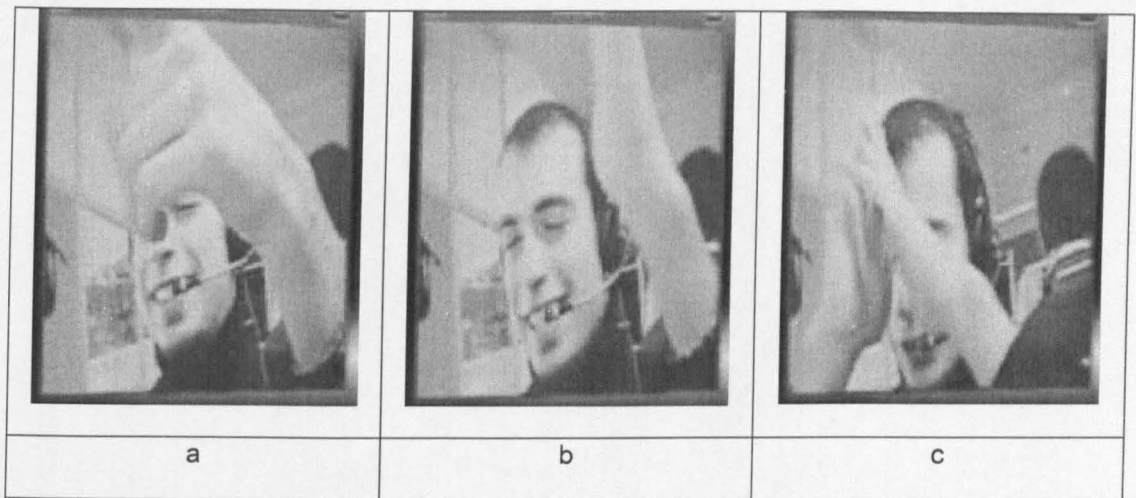


Figure 9 Screenshots in Extract 5.1-3

At the beginning of the extract, when Zeynep mentions that she likes Evanescence, Deniz shows his satisfaction verbally and visually (line 6). In line 9, Zeynep starts singing the song and Deniz joins in. They both look involved (Deniz's eyes closed) and seem to enjoy themselves (singing together and smiling). Zeynep mentions a second name, James Blunt, which is not acknowledged by Deniz. This could be either due to his enjoyment in learning that they like the same singer or due to his unawareness of the singer, as suggested in the next turn. In line 11, when Zeynep uses Turkish, Deniz teasingly reminds Zeynep to stick to English with "shame on you". Zeynep does not acknowledge the reminder, but continues and mentions James Blunt again. She is not offended by Deniz's reminder, perhaps because Deniz had previously used "shame on you" in a teasing manner. As Zeynep continues in English and does not object to Deniz's turn, she might also have accepted the "warning", and thought it does not require a response.

In the remaining part of the extract (which can be found in the accompanying CD), Zeynep says that she likes James Blunt. Deniz asks Zeynep to repeat the surname, and she does and also sings some part of the song. Deniz provides neutral comments ("yes", "that's right") which might mean either he does not like him or does not want to provide his view or rather perhaps he does not know him. Then, Zeynep mentions that she likes Coldplay, which again does not elicit any feedback from Deniz. Next singer Zeynep mentions is

Madonna and Deniz says “she is the best singer I love her”. Then, Zeynep asks if he knows the song “for me it’s to save the world”. Deniz acknowledges that he does by nodding his head and a “hi hi”, but when he tries to murmur the song it feels as if he does not know it and is making it up to look as if he does. This does not create any issues, as Zeynep quickly moves on to the next singer “Cat Stevens”. Deniz responds very enthusiastically and starts singing one of his songs right away. Zeynep also starts singing and they sing a few lines of the song together. When finished, Deniz quickly says, “okay, you can go on” and Zeynep asks if he knows “Wild World”. Until then, shared favourite singers have seemed to create common ground for the pair and singing together is perceived as an indication of involvement and engagement. However, from here on, by the quick introduction of new singers from Zeynep and asking if Deniz knows them, it starts to feel as if attempts to establish intersubjectivity have become a test of knowledge of popular music figures. After asking if Deniz knows the song Wild World, Zeynep sings some part of it and Deniz admits that he does not know the song. Zeynep says that it is a good song and that she recommends it. Deniz takes it neutrally and confirms the name of the song, perhaps implying that he will look it up. Then, very quickly Zeynep mentions that she listens to a Turkish singer called “Rafet El Roman”. Deniz gives a very expressive negative response by covering his face with his hands and shaking his head. He says, “Unfortunately, I hate, I hate him”. Zeynep does not move on, but tries to convince him that some of his songs are good and sings some part of one of his songs. Deniz accepts some of his songs are good, but his head shake and facial expression indicates disapproval (here Deniz rests his elbows on the table and his hands cover part of his face, but his expressions are still visible). The extract ends here with Zeynep returning to the original topic; talking about which places she goes with her friends.

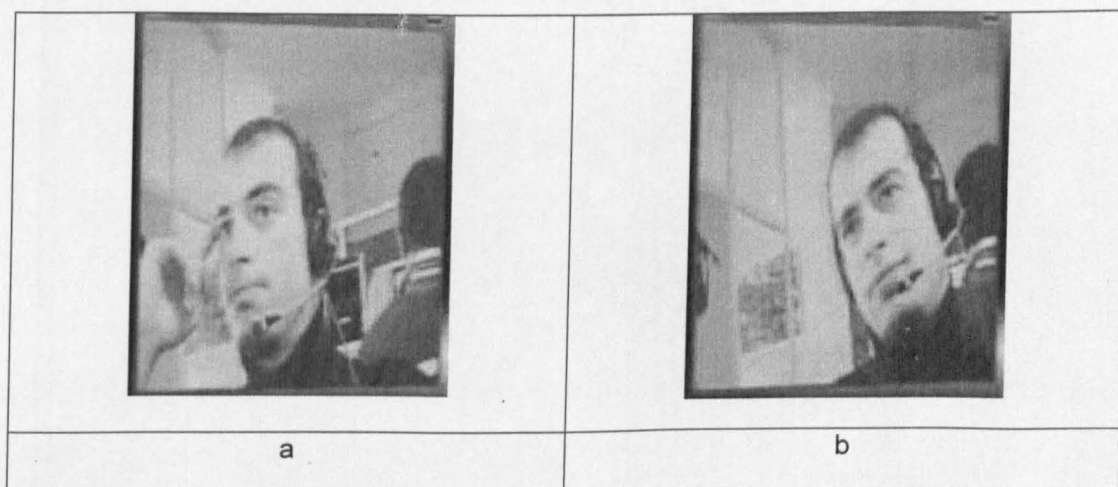
Overall in Extract 5.1-3, shared musical taste initially functions as establishing intersubjectivity. Knowing about artistes and songs positions the participants as members of the same group. Especially for their age group, the music one listens to usually projects

more than just musical taste; it usually identifies clothes, lifestyle and even future aspirations. As Zeynep introduces more singers, the membership is put to the test. Deniz feels uneasy at not recognising several singers in turn and even pretends he knows one of them. The knowledge of music also seems to become a tool of power where the one who knows more dominates. All artistes are foreign except the last one Zeynep mentions. When Deniz says he hates the singer, intersubjectivity and membership are threatened and Zeynep tries to convince him that the singer is "good actually". Musical taste as a tool of status or power is underscored with Zeynep's recommendation of a song and Deniz's disapproval of the Turkish singer. Following this last singer, Zeynep changes the subject. Yet, about two and a half minutes later, Deniz brings up the topic again.

Extract 5.1-4 Favourite singers 2

Deniz asks if Zeynep knows "Three Doors Down". Zeynep answers "I don't know where it is", a response which Deniz reacts with a facial expression that suggests "come on, how can you think it is a place?!" (Figure 10a). He explains that it is a group and Zeynep looks embarrassed; she giggles, plays with her hair and covers her face. Deniz starts to sing the song, this time looking disengaged in the interaction as he closes his eyes when singing and does not pay attention to Zeynep's attempts to interrupt until he finishes. Yet, she takes it positively and asks Deniz to write the name of the group on the text-chat window so she can check them afterwards. She also writes the name of the song she had mentioned previously. After they exchange information, Deniz asks Zeynep whether she knows the song "Hotel California" (at 1:37 in Extract 5.1-4). He mispronounces both words. Zeynep tries to confirm if he said California and he repeats the word this time with correct pronunciation. There is a gap about a second after which their speech overlaps; Zeynep tries to say "I couldn't understand you" and Deniz interprets the gap as an indication of unawareness and says "shame on you, you have to know this!" accompanied by expressive facial expressions very similar to the previous one (Figure 10b). Zeynep does not accept ignorance this time, objecting with an exclamation, but Deniz continues to

talk and does not allow Zeynep to explain herself. Perhaps Zeynep knew about the song, but due to audio delays, she heard Deniz's confirmation of the name of the song late, during which time Deniz had already disapproved of her unawareness of the song. Zeynep quickly moves the conversation on, she does not look offended or try to regain status. She refers to the fact that their interaction is finished with this last session and suggests future contact. When reminded of the fact that the session will end, Deniz feels unhappy (observable in his facial expression (Figure 10c) and hesitation), says "but I didn't talk about" and checks the task (he looks at the screen, his face lightens up perhaps with the white background of the word file) and initiates a new topic. He sounds inarticulate and at the end covers his eyes (Figure 10d). And at the end of this session, Deniz expresses his disappointment with his language skills and complains to Zeynep that he was very inarticulate and could not talk at all. Likewise in the interview, he mentioned to me that he felt he had not had enough chances to speak and express himself in this session. Thus, in this extract, it becomes clearer that Deniz uses musical taste and knowledge as a tool to regain power, perhaps feeling inferior to Zeynep, both in terms of his linguistic ability and unawareness of the artists Zeynep had mentioned previously.



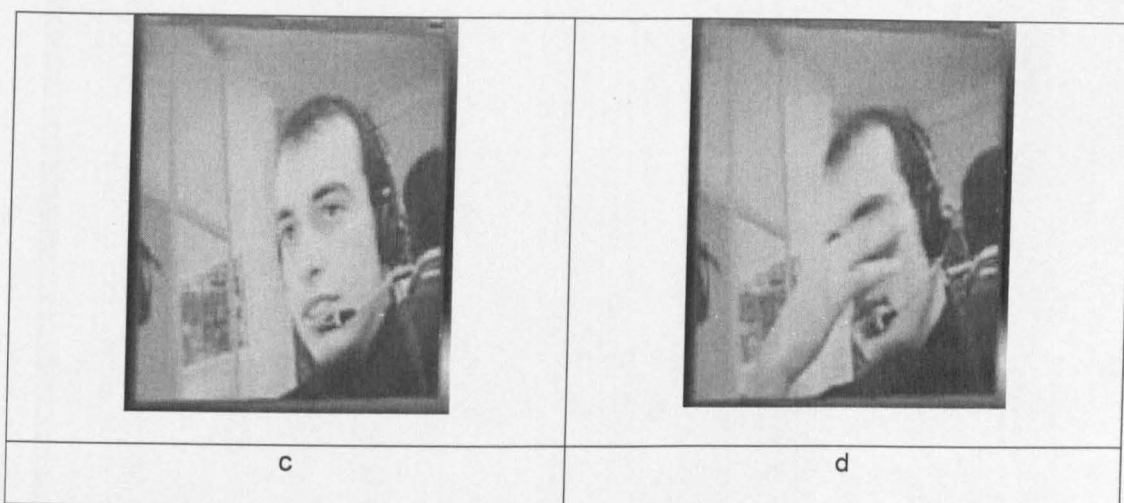


Figure 10 Screenshots for Extract 5.1-4

The last extract I discuss regarding Case 1, Extract 5.1-5, occurs towards the end of session 3 and is marked by the pair showing each other their accessories. This is not the first time Zeynep directs Deniz's gaze and attention to her accessories; in the first session she shows her badge to use the figure on it to symbolise her boyfriend; in session 2 she tries to show her best friend's picture from her mobile phone by bringing the screen of the phone close to the webcam and in the beginning of session 3 she shows her nails which were painted black.

Extract 5.1-5 Look at my watch

Lines	Transcription	Explanation
1	z. what's the time what's the time there? (1.0)	
2	d. eleven ((smiles))	Checks time on screen, his watch and part of his wristband are visible.
3	z. ((smiles))	
4	d. to four minutes (.) four minutes to eleven	
5	z. Hmm (.) e: can (x) no no no no six minutes to eleven	Head nod and moves closer to camera (possibly to check time on her screen).

6	d. How is my watch (.) look at my watch	Brings his watch in front of the camera, brings the wristband on his right arm first by mistake.
7	z. hahaha o::h it's really nice actually	o::h indicates liking
8	d. but it is not working (.) but it is not working	Both hands in front of his face, covering the embarrassed smile; possibly because he is using the watch only as an accessory
9	z. err: I have (.) Deniz I want to see: the: right hand (.) what's it what's it? (1.0) what's it?	Body posture and gestures trying to describe the wristband on his right wrist (Figure 11a).
10	d. my?	D. does not understand. Gesture, illustrator: both index fingers pointing himself
11	z. right hand (.) right ha:nd ((showing))	Brings her right hand in front of the camera and holds her wrist with her left hand
12	d. here see	D. shows the wristband to the camera
13	z. it's not your right hand Deniz:	Wrist still in front of camera (perhaps due to time delay in visual transmission)
14	d. my right hand ((smiles))	His smile and facial expression indicates contentment regarding Z's liking.
15	z. hehehe it's really (nice) it's better it's better than your watch	Hehehe – indicates: yes, that's it! Brings microphone closer to her mouth.
16	d. yes you're right it's a gift from my (fr) best friend	
17	z. hi:m ((smiles)) I like it o:kay	Now her turn to show an accessory

	[how is my necklace] ((shows it))	(opens up the collar of her top to show the necklace)
18	d. [from a (.) girl] ((smiling)) (.) your necklace?	He says "from a girl" with emphasis, followed by a slight grin. Time delay in audio causes interaction overlaps.
19	z. (xxx) it doesn't matter whether it is from a girl or from a boy for me ((smiles))	Her intonation might imply "I do not mind, you can have a girlfriend, I am not interested in you". Yet, her giggles and raising intonation when saying boy might imply just the opposite.
20	d. ((smiles)) ((inbreath))	D. points to screen with both index fingers, indicating Z. has understood the tease. He laughs; his hands cover his face, and he has a smile implying embarrassment (Figure 11b).
21	z. ((smiles)) oka:y(.)	Z. tidies up her hair and her intonation indicates that she gives the turn to D.
22	d. okay, show me your necklace	
23	z. necklace? (.) it's my friend's it's not mine	As Z emphasis that the necklace is not hers; perhaps suggesting that it is not exactly her style or part of her identity.
24	d. from your frien	
25	z. him: (not not) (xx)	
26	d. your friend	
27	z. it's my friend's (.) it's not mine	Gestures helping to clarify that it is her friend's, and not a gift from a friend
28	d. (your) from her?	
29	z. (xx) ((shows ring)) (evil eye)	Shows her ring on the camera

30	d. it's yours?	
31	z. ((smiles)) <i>nazar değmesin</i>	Uses a Turkish expression, as she usually does. Translation: similar to "touch wood"
32	d. god bless me: ((smiles))	Makes the sign of the Christian cross (D's attempt to translate the phrase)
33	z. god bless (me) [((smiles))]	Makes the sign of the Christian cross (Nonverbal mirroring)
34	d. [((smiles))]	(Nonverbal synchrony)
35	z.(.) what else? (.) [It's about (xx)..]	
36	d. [what else?]	(Verbal mirroring)
37	z. it has been about an hour	(Attempt to finish the session)

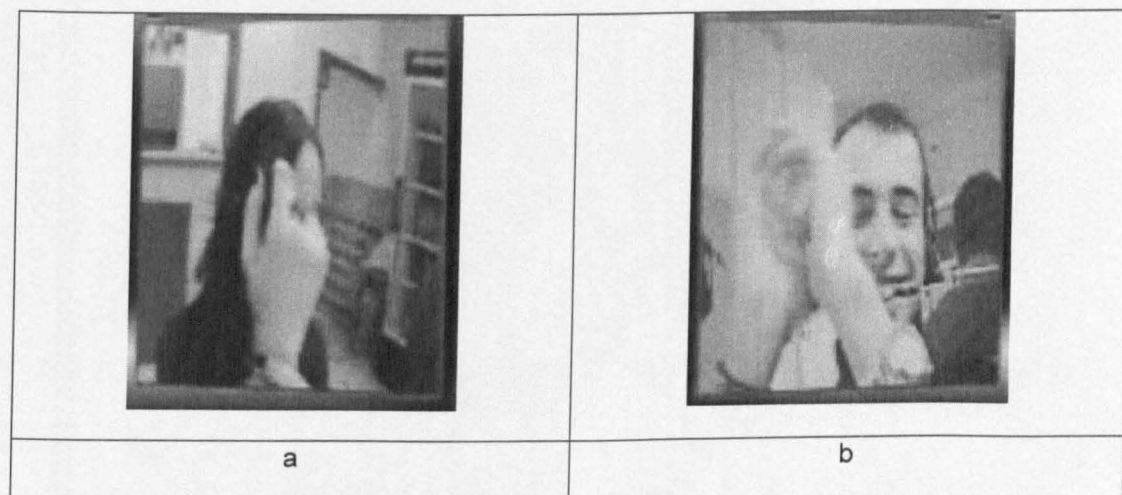


Figure 11 Screenshots in Extract 5.1-5

The extract starts with Zeynep asking the time. Deniz looks at his screen to tell her the time and then shows his watch to Zeynep to ask whether she likes it or not. He also mentions that the watch is not working (lines 6-8). Deniz's use of the non-functioning watch could be interpreted solely as a stylistic artefact that complements the visual projection of his identity. This directs Zeynep's attention to the wristband on his other

wrist. Zeynep says that she prefers the wristband over the watch. Her approval of both accessories assigns them to the same group, confirming membership. Deniz starts banter and teasing, by emphasising that the wristband is a gift from a girl. Zeynep acknowledges the tease and responds appropriately, which Deniz accepts nonverbally (lines 18-21). Shared and reciprocated humour evidences involvement in the interaction. Giggles and embarrassed smiles might also suggest some hidden flirtation. In lines 23-29, Zeynep shows him her necklace and her ring. The ring has the "evil eye bead" on it which naturally triggers the Turkish expression "*nazar değmesin*" (which is similar to "touch wood" in English). Deniz attempts to translate the expression into English by saying "God bless me", accompanied by the Christian "cross" sign. Communication in lines 32-36 of the extract is marked by verbal and nonverbal mirroring and synchrony, which align the pair on the same interactional plane, reinforcing intersubjectivity (shared humour) and involvement.

5.2 Case 2: Filiz (female) and Nil (female)

Filiz was registered at SU and was 19. She had a high-spec laptop with inbuilt microphone and camera, but very low computer skills. Although a frequent user of MSN Messenger, she had difficulties receiving the questionnaires as an e-mail attachment and responding to e-mail messages. As she had internet access at home, she was available on most evenings and at the weekends. In terms of FL level, Filiz had expected Nil to have a better level as she was registered at a university which required higher examination scores. However, Filiz said following their first session that she perceived them as equals, "For example, I thought we were equal there, we are both students anyway".

Nil was 18 and registered at NU1, in her hometown. However, her house was quite far from the university, so on some weekday evenings she stayed with her aunt, who lived closer to the campus, and therefore could not be online. This was a limitation on the arrangement of the sessions. She had a PC with external headphones and webcam. Her computer skills were adequate for the study. Her online chat interactions involved instant messaging and rarely audio and video chat. She also stated that she never used English in her online interactions.

When asked about the best and worst things about their sessions, Filiz reported in her post-task questionnaire that the worst thing about the sessions was that she initially had problems due to her insufficient skills in using the DVC tool and that she did not feel good when she could not remember some vocabulary in English (FL) during their interaction. The best things about the online sessions for Filiz were to meet a new person and get to know about what they study in a similar department in a different university as well as being able to practise English online. Filiz also seemed to feel privileged and special to be involved in the study. In her interview when asked if she had any other comments, she said she enjoyed the study a lot and said:

(interview)

Filiz: We were walking with friends yesterday after lunch, they went like, what did you do, your interactions, talked, and Deniz and I we go like, what are we doing tomorrow, we will talk, right, and they go, what talk, what are you talking about? We say, our teacher will come from abroad and we'll talk to her and they go like, really!, you're very enterprising ("*çok girişkensisiniz*"), then we go, yeah, we are, a student must be like that.

For Nil, nothing was bad about the sessions. The best thing for her was the opportunity to express herself well and understand her partner well, too. Nil also welcomed the availability of the video. She said that she had a better idea of Filiz when she saw her and that they could communicate with their visual reactions when they could not express themselves verbally. She found writing "colder" than video interactions which lacked (reliable) emotions.

(interview)

M: What would you like to say about the effects of writing, speech and video in your online interactions, such as influence on communication and interaction...?

Nil: ... when writing, you perhaps cannot understand emotions, I mean s/he can talk about a bad event but could write while smiling, or may not care about it at all ... I mean you can make more accurate decisions about a person when the image is involved, writing is a bit colder.

In terms of physical appearance, Nil was wearing a headscarf in all three online sessions. Almost 99% of Turkey's population is Muslim. However, being a secular country, wearing the headscarf is not imposed by law. Women choose to wear it or not according to their beliefs or the norms of their closer social circles. What is interesting to note here is that women do not wear the headscarf at home when they are with other women or with male

members of their household. Nil wore her headscarf in all online sessions although she was participating at home and no male participants were present online. Her pairing with another female was arbitrary and was arranged before I met her online using video. Except for her video image, there were no signs in their interactions with Filiz that Nil wore a headscarf. However, when visible, it definitely formed part of Nil's identity and influenced Filiz's decision on what was appropriate in the context. When asked about whether being able to hear and see her partner affected their interactions or her impressions of Nil, Filiz mentioned that she did not ask Nil about her personal life or her boyfriend because of her headscarf. Although she wanted to explore and learn more about Nil's personal life, the visual representation of Nil's identity via her headscarf as a visual semiotic meaning-making resource prevented Filiz from asking Nil, in particular, about her romantic relationships. In their DVC sessions, Filiz's attempts to find out more about her partner were mainly focused on her studies including classroom language learning activities. Filiz less frequently inquired about Nil's life outside the school. The headscarf was, in a way, a determinant of acceptable topics.

(interview)

M: Did her tone of voice, the way she spoke gave you any impressions about her personality or the kind of person she is; or did seeing or hearing her had an influence on your interactions?

Filiz: Well, for example, the fact that Nil was wearing a headscarf, well, I mean, for example, I wasn't able to ask her if she had a boyfriend. But if she was a different person, I could have asked, to extend the conversation or to talk about other topics than the task. For example, I wasn't able to ask her about that, like, I couldn't enquire about her private life, but if she was a different person, I might have asked about her private life.

When I asked whether they felt they were communicating face-to-face in the same room at any time forgetting about the computer interface, Nil mentioned that she found Filiz very intimate (*samimi*) when they were talking about their personal lives, that is, families. Filiz also mentioned an instance involving their families, but with an emphasis on showing the pictures and pointing to their family members.

Throughout the online sessions, Filiz smiled and used gestures and facial expressions a lot. She noted that “[she] used gestures because [she] felt more comfortable” (final questionnaire). These were perceived positively by Nil. In the interview, Nil said that she instantly found Filiz very warm, felt positive energy and never felt the interaction was boring.

In the final questionnaire, Filiz did not think Nil expressed her emotions or used humour, while Nil stated that both expressed their emotions and used humour. Throughout the interactions, Nil was reserved; she did not make jokes and smiled infrequently, especially in the first session. Although she seemed to relax more in subsequent sessions, generally she did not use gestures much and kept her eyes on the same point. Although Nil reported that she “tried to show that [she] was open to communication with [her] smiling” (final questionnaire), Filiz perceived her as a reserved (*ağırbaşlı*) and serious person, particularly at the beginning.

(interview)

F: My first impression of Nil was, I thought she must be quite a reserved (*ağırbaşlı*) person, a person who is very serious. ... Then, my impression changed of course, in time as she started to talk and smile, and she smiled and when we were talking about our schools, studies, when we said I don't like these courses, then she was smiling, my impression changed. In fact, she is not like that, I mean she might be a funnier person, but of course she still seemed to be serious to me, because when I

also think about the tasks, she seemed to be a very reserved person.

As Filiz implied in the excerpt above, Nil smiled more and seemed more relaxed when they were talking off-task. However, especially compared to Case 1, there was less divergence from the task in Case 2. While Nil would usually keep the topic on task, Filiz would try to incorporate topics from their daily and school lives, predominantly at the end of the sessions. For Filiz, off-task talk, particularly talking about themselves, was a sign of getting closer and more intimate.

(interview)

F: In fact, we didn't talk about ourselves much. We kind of always focused on the study. For example, when I asked Deniz, how are your conversations going, he said well, we progressed a lot; we even use sentences like I will kill you. I said do you?, we are kind of more serious, as if we have not got that close / intimate (*samimi*) with Nil. ... it was like there was a distance ... in later sessions I asked her some questions, like how are your lessons, what kind of activities do you do in your courses, which courses I don't like and stuff, when we talked about these it became much better, I mean we created a better environment to hit it off / become good friends (*kaynaşma ortamı*).

Quantitative results say little about social presence and its development in Case 2. Both Filiz and Nil said, in all three sessions, they "always" felt that they were involved in communication; that they could express their thoughts and feelings; that they could understand their partner's thoughts and feelings; and that they worked together and helped each other.

Nil reported in her post-task questionnaire that she was a bit nervous in the first session, but was "really relaxed" in the following sessions, because, as she wrote after session 3, "I

was quite calm because my friend was also relaxed and calm, and we had got to know each other better; for example, we had fun talking about daily topics not set by the task". Likewise, Filiz also reported that in the first session she was "a bit excited, but than relaxed and it was ok" (student's own English).

As the sessions went on, both Filiz and Nil relaxed more; they got to know each other better, they got used to the tool and to speaking in English. Gradually they started including off-task topics in their conversations. After the last session, Filiz stated that she felt relaxed by having lots to talk about in that session, for which the topic was their daily activities. These indicate useful guidelines for task design; to allow enough space for off-task talk and to choose topics, especially for initial sessions, which can be easily extended and to which the learners would not struggle to contribute. Having plenty of things to talk about is particularly important in online communication where silences are less tolerated compared to face-to-face interaction. Chronemics work differently online; while in face-to-face interaction you would not necessarily get up and leave once there is some silence and would perhaps force yourself to initiate a topic, in online communication it is easier to hang up or log out than go through the stress caused by the silence. This was exactly what happened in the first session of Case 2.

(interview)

Filiz: ... when the topic ends she says, that's all, I mean she said that's all I will talk about. For me, that was a sign that she wanted to finish the conversation. And in the first session, we asked a question, then we were both silent, then I couldn't find anything to talk about either. N didn't talk as well and there was no point in waiting. Also as I said, I didn't think we could talk about anything we wanted then, well the task was also over, then I said like, that's all, is there anything you want to say, and when she said no, I said okay, and we finished and said see you in the second session.

In terms of the difference between face-to-face interactions and online sessions, Filiz also mentioned that it was easier to initiate more topics face-to-face because online communication (a) aroused some anxiety due to interacting with an unfamiliar person via the limited perspective afforded by DVC and (b) felt like prepared interaction for a study and not spontaneous.

For Nil, off-task talk and extended chronemics (not hanging up right away when the task is over) implied satisfaction, except for session 1 when they finished the session quickly. For Filiz, being able to talk off-task suggested establishment of trust and knowing the person better.

(interview)

M: What do you think were important in your first encounter?

F: In our first encounter what was important, well, do we really trust each other while we talk?, I mean, whether we thought we could talk about anything at the time.

Maybe because of that, in our first session, we just focused on the task. ... I thought maybe at first we had not established trust, but then as we started talking about other topics, I mean, we had had two sessions already, I mean, you now know the student, therefore, then an atmosphere to share emerges.

While in her post-task questionnaire Nil noted her surprise at sharing personal information, in her interview at the end of their interactions, she still was not able to say that she knew Filiz well. She mentioned that Filiz's facial expressions conveyed partial trust, and she was not quite decided on the authenticity of these expressions.

(interview)

M: Can you say Filiz is a person you know? Or is she a stranger, a friend, someone you met once?

Nil: I can't say that I know her well, ... maybe the things she told me were not true, I mean, we didn't live anything that would make me believe her, she told me and I listened. Of course, I could tell from her face and all but well, I'm not sure how true they were.

At the end of the third session, several other questions were addressed to determine their overall degree of social presence (Table 7). Their answers were very similar to each other's and always towards the higher end of the scale.

Table 7: Overall Social Presence in Case 2

	Filiz	Nil
Getting to know the other person by talking via this online medium gave me a sense of belonging in the communication	5	5
I was able to form distinct impressions of the other participant	4	4
This communication mode is an excellent medium for social interaction	4	5
I felt comfortable with disagreeing with the other participant while still maintaining a sense of trust	5	2
I felt comfortable interacting with the other participant	5	4
I felt that my point of view was acknowledged by the other participant	4	5
Online collaborations helped me to develop a sense of collaboration	5	5
I felt comfortable introducing myself on this online medium	4	5
I felt comfortable expressing my feelings on this online medium	4	5
Conversations using this online medium was more impersonal than face-to-face conversation	5	4

1. Totally Disagree 2. Disagree 3. Undecided 4. Agree 5. Totally Agree

For Filiz, agreements only “showed [her] that [they] have some same hobbies” (student’s own English in final questionnaire) and she did not mind disagreeing. On the contrary, she felt she would have had more opportunities to learn new things from people who held alternative views. Yet, it was interesting that whilst Nil was comfortable expressing her feelings, introducing herself and felt her point of view was acknowledged, she did not feel comfortable disagreeing with Filiz.

Nil was more cautious about voicing her own views; “I did not disagree much, I would not know the reactions of a person I was just getting to know” (final questionnaire). She was hesitant to disagree, because for Nil agreements were important to “enjoy” the interaction. Despite accepting the possible existence of “certain disagreements in relationships”, Nil believed that “you can stay together as long as you meet on common ground” (interview). Perhaps, Nil perceived agreements as an important tool to establish intersubjectivity and membership. Agreements were also important for Nil to sustain a relationship longer and to become good friends, which might not be that important if the conversation was for a learning task only.

And possibly Nil’s strategy of not disagreeing created the effect she intended, because at the end of their third, and last, session they agreed to continue their online interactions in English, which they also expressed in their interviews.

(interview)

M: Would you like to continue your conversations with Nil, did you trust her?

Filiz: Yes, definitely, we have already agreed on that with Nil, I mean, we said let’s continue this interaction and in English like this. She said okay, we are already planning to continue.

Therefore, the context seemed suitable to “feel comfortable with disagreeing with the other participant while still maintaining a sense of trust”, because they shared personal information, agreed to continue their relationship, and expressed that they trusted each other. There could be three plausible explanations why Nil might not have felt comfortable to disagree. First, three online sessions were perhaps not enough for Nil to develop necessary trust for disagreements. Trust building may take different amounts of time for different people and different actions may require different levels of trust. Second, as Nil stated that agreements were important for longer relationships and friendships, she might have strategically avoided disagreements with Filiz to ensure that they could work together successfully. Nil seemed to take participation in the research very seriously and was usually prepared for the task. She appreciated Filiz’s help when she was not prepared; she felt valued and important when Filiz showed pictures, which implied she was also prepared. Lastly, she might have aimed to become friends with Filiz and sustain the relationship for further online English interactions following the completion of the research. Nil valued her participation in the research as an opportunity to improve her speaking skills in English. She had never communicated online in English (background questionnaire) and felt less confident in her oral skills (interview).

Multimodal interaction

The following extract (Extract 5.2-1) is taken from the third session of Nil and Filiz. The session lasted for about 45 minutes and this four-minute extract took place midway through the session after the tasks were completed. In the remaining of the session, the participants talked about their school life and lessons, evaluated their session, expressed their wish to continue their online English conversations and ended with salutations. The extract illustrates the unique characteristic of the pair, that is, the way in which Nil’s headscarf leads to a certain interpretation of a paralinguistic cue and a certain creation of identity. It further provides initial evidence into how gaze, gesture and absence of a mutual

physical ambiance define DVC interactions. I will analyse the extract in three segments

(lines 1-14 and 15-31 and 32-68).

Extract 5.2-1 Here a photo

	Verbal	Nonverbal
Segment 1		
1	F: do you have any some photos about [NameOfCity3] or places you go (.) in [NameOfCity3]?	
2	N: [err] I have but err I didn't because I didn't err read the tek task <u>before</u> err because Muke Muge err (.) now (.) showed it send it to me	Filiz: <u>head nod</u> Nil: facial expression (eyes) implies she is sincere
3	F: yes [I know]	
4	N: [I (.)] yes I can't get prepared	Smiles when finished
5	F: okay no no [problem]	Smiles
6	N: [yes]	
7	F: I also [(x) (has) today]	
8	N: [I'm I'm sorry but (but) I] didn't err I'm not aware of this	
9	F: no no it's not so important[	Smile and cheerful tone of voice implies she understands
10	N: yeah if I (.) if I can find (.) later[
11	F: yeah[	Smiles
12	N: I can (.) send it (.) to you	
13	F: okay (.) I'll be glad (.) thanks	Smile and cheerful tone imply appreciation
14	N: yes (2.0)	

Segment 2		
15	F: how about the books are you reading err any novels now?	
16	N: no I'm not reading now (.) because of the lessons because of homeworks I really struggled to do them all only (.)	
17	F: oh [I know]	
18	N: [but][
19	F: err we	
20	N: yes[
21	F: we also have homeworks and err quiz this week it will be as important as a final exam and also some report we have to prepare err as you know err at the after this week we also our (.) exams [will]	
22	N: [finals][	Looks left, stretches arm (and takes a photograph as revealed later on in interaction)
23	F: start (.) err but[
24	N: yes[
25	F: I like reading so much err I really think it it should be a must for everyone I don't know err because (.) it give me so many things[
26	N: hi hi[
27	F: I like it so much err and before is sleep every night I try to read a few page if I have not time and [(I to)]	

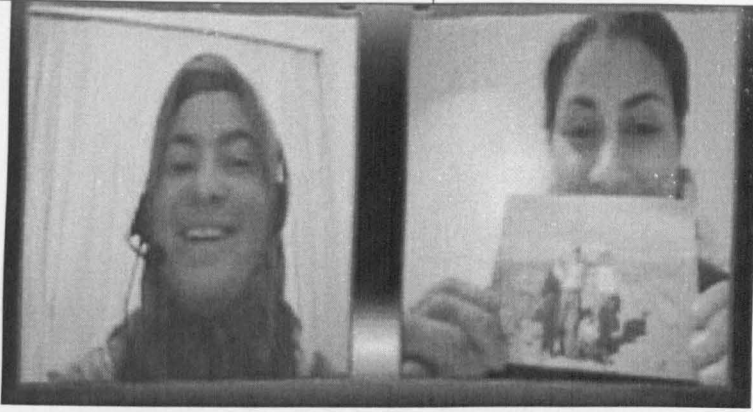
28	N: [ye:]	
29	F: it's also my favourite to (x) in my bed and start to read it (.) [it's so enjoyable]	
30	N: [yes, I think] yes yes I think it <u>I will I will start it</u> on holiday	<u>Quiet background voice:</u> <i>iyi bir kıza benziyor</i> (she looks like a nice girl)
31	F: okay err after a <u>certain</u> time err when you read so much it become it become a habit and you really can't give up it you feel something strange when err you didn't in every day so you always say to yourself oh I didn't read today I should err read a few page if I'm not have so many time because it is like that for me	<u>Quiet background voice:</u> hi hi (confirming backchannel)

Segment 3

< > marks start and end points for Nil's behaviour; / \ marks that of Filiz's.

32	N: Hmm (.) here <a photo /(.) >	N laughs; F smiles
33	my sis my sister found <a photo (1.0)>\	N laughs; F smiles
34	[(xx)]	N laughs
35	F: /[oh (xx)]\	F laughs
36	N: /<(1.0)\ can you see?	N shows photo on screen - starts; N's gaze to the left (perhaps on screen checking how well she shows the picture) F moves closer to screen
37	F: yes I can see /where is the place?\	F moves away from camera
38	/(.)\	F places her hand under the chin
39	N: <i>Kadıköy</i>	
40	F: /oh, I see>\	F smiles
41	N: <she is me>	N points to one person on picture;

		laughs
42	<[and]	N points to other person on picture – starts
43	F: /[yes]\	F smiles; removes her hand from the chin
44	N: another one is my sister>	N points to other person on picture – ends
45	F: /<okay I see\	F moves a little away from camera
46	N: here is <i>Kadıköy</i> >	
47	<1.0>	N removes picture; laughs
48	F: /<also my sister is here (you) see her err>\	N gaze: right (screen); F turns head right taking pictures
49	/<she is my sister (.)>\	N gaze: camera; F puts picture close to camera
50	/<this one\	N gaze: right (screen) - starts; F points to the photo
51	N: /<yes,> I saw it>\	N: nods; F looks at photo and points again with the other hand
52	F: she is my sister /and the other is (.) me (.)\	F points to other person in the photo
53	N: /<hi>\	N nods; F removes the photo
54	F: /a:nd [err]\	F shows another photo
55	N: [she is] <older than you?> is [she]	N raising intonation, gaze: right
56	F: [no she's]	
57	N: <older than you?>	N gaze: right; looks at camera when finished
58	F: /<I am older than> her\	N gaze: camera, looks right when finished; F smiling voice

59	N: <ha:>/ (1)\	N gaze: camera; laughs; intonation surprised; F smiles
		
60	F: <and err	N gaze: right until end
61	/this is my brother (.)\	F points to photo
62	/and e: this is my nephew (.) [sitting here]\	F point to somebody else in the photo
63	N: [<hi:m>]	N slight head tilt
64	F: yes err he is <my brother's son>	N nods slightly
65	(.) Muhammed /and my brother's name is\	F looks at photo and points
66	(.) /Osman(.)\	F looks at photo
67	/<sister's name is Sultan> (.)\	N nods slightly; F points to photo
68	N: /((smiles)) <(1.0)>\	N gaze: camera; N leans back; F removes photo; F leans back

In segment 1 (0' 49", lines 1-14), Filiz asks Nil if she has any pictures of her hometown. Filiz had shown pictures of her hometown earlier in the session, but Nil had not. Nil apologises and accounts for not being able to show her pictures and promises to send them when she finds some. Filiz accepts Nil's apology and expresses her appreciation for the offer to share pictures. This segment illustrates how participants establish empathy via a sequence of accounting, apologising, promising, accepting the apology, showing

understanding and expressing appreciation. Both participants make meaning using linguistic and paralinguistic elements of communication, especially sincerity implied via their facial expressions and tone of voice. These elements are perhaps important tools to foster immediacy.

In segment 2 (2' 0", lines 15-31), Filiz initiates a new topic on books by asking Nil whether she reads books in English. She then starts almost a monologue on her reading habits with very little contribution from Nil. This segment marks the lack of shared physical ambience, indicated by invisible people and events which are only available to Nil. In line 22, although not visible in the recording, it is highly likely that Nil silently interacts with others in the room, that is, she perhaps takes the photograph, for whose absence she had apologised earlier, and which she shows to Filiz in the next segment. In line 30, a quiet female voice in the background says "she looks like a nice girl" in Turkish and in line 31, a quiet confirmation is heard. These interrupt neither Nil's nor Filiz's involvement, unlike a face-to-face context. However, the voices are quiet and it is not clear if they are heard by Filiz. As the voices are potentially commenting on Filiz, the position of the camera and the screen are such that others can see Nil's screen, but their images and movements would not be transmitted by the camera.

In segment 3 (1' 20", lines 32-68), Nil shows a picture of her sister and herself, which her sister has just brought. They are both enthusiastic to see the picture and this is expressed in a high level of visual and vocal expressiveness. They sound cheerful, smile and laugh, Nil points to people in the picture and Filiz moves nearer the screen to see more clearly. In line 49, Filiz shows the pictures she had shown previously, this time indicating who the people are in the pictures, reciprocating the way Nil described her picture. Filiz points to two people in the picture and points to the girl who wears the headscarf explaining that she is her sister and the other is herself. Nil asks if her sister is older and she is surprised to learn that she is younger, which she expresses with a paralinguistic vocal cue (ha:!) in

line 59. The information puzzles her perhaps because she finds it unusual for Filiz's younger sister to be wearing a headscarf and not herself. In Turkish society, the older sister usually wears the headscarf earlier, and in the family it is rare for the younger sister to wear a headscarf and not the older. This was a moment which Filiz remembered from their interactions and the way she interpreted Nil's reaction:

(interview)

Filiz: Nil also laughed at something, which I had found interesting. I was showing the photographs, there I had my sister, I was talking about the time I went to Mount *Nemrut* with my brother, I showed my sister, I said her name and so on. Then she asked like if she was younger or older. My sister was also wearing a veil, I said like, I said no, when I said I am older Nil laughed there... that was interesting for example...

M: What did you think when she laughs, how did you feel?

Filiz: I wondered, well, in Turkey it's like, usually the older wear the veil first, then the younger wears it. I thought maybe she found it weird for her to be wearing the veil because she is younger. ... I mean I thought she thought like anyone else would do, it was not a negative impression.

The meaning is negotiated within seconds via the contextualization cue (ha:) without further enquiry based on the cultural and religious intersubjectivity affirming a single interpretation among many. The shared knowledge of Turkish practices of wearing a headscarf leads to substantial meaning-making via a brief paralinguistic vocal exclamation which implies surprise.

Another interesting feature in this segment is Nil's gaze, that is, her use and positioning of her webcam and screen. As an observer, when watching the recordings her gaze usually stays on the camera, perhaps with an attempt to sustain eye-contact. Initially, I had thought that she had positioned her webcam in a way which would allow her to alternate

her gaze with little effort between the webcam and the screen where Filiz's image is displayed (for example, on top of or close to the screen). However, as is apparent in lines 36 and 48 and onwards, Nil has to turn her head right, almost to a 90 degree angle, to check how well her image (the photograph she is showing) is displayed and to look at the photograph Filiz is showing. Her intentional use of the webcam is unusual in the sense that it requires additional effort to alternate gaze, particularly due to the position of the screen and the webcam. I further discuss and illustrate the issues in relation to eye-contact and gaze in DVC in sections 6.4.1 and 6.6.3.

According to Andersen (Andersen, 1998, 2008) there are five codes of the body: physical appearance; kinesics (body movement); oculusics (eye behaviour); proxemics (interpersonal spatial behaviour); and haptics (tactile communication). In the DVC context, physical appearance is limited to the portrait visible via the webcam, in other words what is visible within the focus of the webcam from a suitable distance between the computer and the participants. Unless participants intentionally move the position of the camera, frequently only the head and shoulders are visible. Unintentional physical appearance, that is, the visual image including clothes, hair style or objects in the background, also conveys meaning about your character (the headscarf may also play a role in Filiz's interpretation of Nil as a serious person) and could determine acceptable or unacceptable topics (as Filiz found it unacceptable to talk about romantic relationships with Nil because of her headscarf).

In terms of kinesics, in this specific extract, participants do not move much, except infrequent leaning forward and sideways as well as making hand gestures (pointing to pictures) and head movements. It is very difficult to observe oculusics (eye behaviour). While Nil's gaze was observable with her head movements to shift her gaze between the screen and the webcam which were positioned separately, it was more difficult to determine Filiz's gaze because she was using a laptop with an inbuilt camera. Proxemics

is almost non-existent via DVC. In the present video segment the participants move closer to the screen when their partners are showing their pictures. Although not physically closer, leaning forward to the screen or webcam and bringing the pictures closer to the webcam might to some extent create the same effect as decreasing physical distance. Moreover, the participants cannot see who else is situated in the physical space of their partner. For instance, in this extract, Filiz does not see others who are perhaps present in the same place with Nil; their movements and interactions are inaccessible to her. Nil and Filiz have to intentionally bring the pictures within the visual fields accessible to each other in order to show each other photographs.

Due to being physically distant, haptics (touch) is naturally not available in DVC. It is possible to use deictics to the extent that the referred object is within the visual field (for instance, pointing to the people in the picture: this is my brother, etc.).

5.3 Case 3: Defne (female) and Hale (female)

Hale was 20 and registered at SU. Defne was 18 and registered at NU2. Both described themselves as advanced level learners of FL. In the recordings of their video sessions, Hale comes across with an American accent. For their online session, both Hale and Defne used a laptop with a separate camera. Hale was also using separate headphones with a microphone. Defne was staying in a student hall and during the sessions she was always alone in her room. On the other hand, Hale was staying in a shared flat and during the sessions, there were people moving around in the background and sometimes even talking to or interrupting her. Their conversations, especially the first two sessions, were interrupted quite frequently due to internet connection problems, which resulted in rescheduling the first session twice and the second session three times. Moreover, during these two sessions, the video quality was poor and video images were usually not transmitted at all. Their IT skills did not create any problems throughout the study.

In their background questionnaires, they both reported frequent internet use; going online many times a day. They both stated that they were using all three modes (text, audio, and video) in their online interaction which in their native language included talking to their friends and relatives. Hale stated that in their interactions with other Turkish people she used audio and video only with the people she knew. Defne mentioned using text-chat many times a day, video a few times a week and rarely audio. Their online interactions in English included conversations with random language buddies where English was the only common language. Hale stated that when talking to foreigners she used all three modes to improve her English, while Defne stated that she preferred mainly text (many times a day) and used audio and video to a lesser extent (1-2 times a week). For online interactions, MSN was the common chat tool for Hale and Defne.

In her interview, Hale talked about her online interactions with English learners from around the world. She said she had been using online chat for a year to develop her

language skills and to learn their languages and find out about their cultures. She had found friends online through websites such as travel mate, hospitality club and also by using software such as ICQ and Skype. She also mentioned that she found online interactions less personal (interview and post-task questionnaire) and was very sceptical about the truthfulness of people online. She emphasised that she would never send her picture to people she did not know (i.e. only knew online), because they could edit and use her photograph without her consent.

(interview)

M: How important is trust in your relationships?

Hale: I think it is very important. Because for example, when chatting with foreign people they ask for a photograph, they want me to send it. Of course you wouldn't, I mean to someone you don't know, because you don't trust him/her, think what they can do with your photograph.

However, she also mentioned (interview and post-task questionnaire) that she was looking forward to the opportunity to interact with others in this online medium, especially with native and other non-native speakers of English. Hale stated that she valued these online interactions, because they helped her improve her English and she was learning a lot from others. Hence, while she could not fully trust people online and was aware of how much personal information she disclosed, she was quite content to continue online interactions to improve her language skills.

Physically distant, psychologically close

Both participants mentioned in their interviews that they were aware of the physical distance. When asked how close Hale thought she was with Defne, she said, "I think we are quite distant, she is in [NameOfCity4]!". Defne also expressed her view that online audio and video interactions were not the same as face-to-face interactions because "first

of all, psychologically you keep in mind that she is away from you, that she is in a distant place, there is an interaction but only via the technology". In her face-to-face interactions, on the other hand, she could feel some sort of immediacy due to physical proximity. Yet, for Defne, the best thing about the session was "to communicate as if [they] were face-to-face" (post-task questionnaire following session 4).

Still, when asked if they ever felt as if they were in the same room, both participants suggested that they did feel like it when they were drawing a room in an online collaborative whiteboard for both of them to share. Both were able to see each other's pens and simultaneously edit the picture using deictics to determine the location of the objects.

(interview)

Defne: For example, we were describing a room we were going to do together, Hale was as if she was next to me when we were doing it, let's put this here, put that there..

Hale: For example, I said I'm drawing the TV here, you draw that there. I mean we were in the same room; our pens were at the same place.

Figure 12 is a screenshot from their recorded whiteboard session. The recording did not show simultaneous action and queued one action after another; hence the figure only shows one pen.

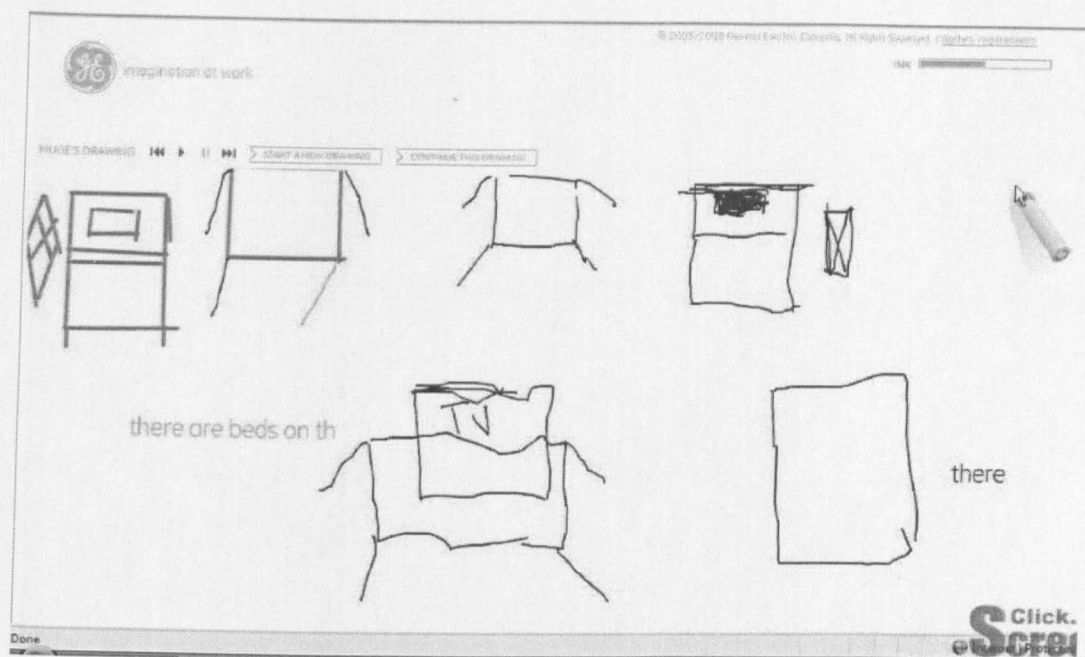


Figure 12 Screenshot of the bedroom Case 3 drew on the online interactive whiteboard

Familiarity and trust

After session 2, Defne thought she could trust Hale more as she got to know her. She felt the tasks, which required them to talk about their personal characteristics and what they like and do not like doing each day, also helped. Defne was able to feel some sense of trust even after the first session and she thought Hale was not a stranger anymore after the second session.

Hale, on the other hand, developed trust much slower. She was very critical about trust after the first session. She wrote, "Of course I can't trust her, because I just talked to her for half an hour and didn't talk to her anywhere else, I just know her name and where she lives". Only at the end of the fourth session Hale could state that "maybe I can trust her a bit, but I am not sure". For Hale, trust seemed to be closely related to knowing more about a person. She thought "each session was more intimate than the previous" and at the end of the second session she felt relaxed and admitted that she told more about herself than she normally would have done "I felt really relaxed for example; I talked about things

freely here which I would normally hold back, I don't know why but I did". When all sessions were over, Defne said she knew Hale to some extent and thought she had developed some trust "that would not be so deep".

Nevertheless, Hale could form a correct impression of Defne when she mentioned in her interview that:

(interview)

Hale: "I got to know her better in time... Defne is a bit silent ... but still she is cheerful, when you talk, you start first, then she follows. You know, some people are like that, I don't know, that's my impression".

This was confirmed by Defne when she was talking about herself in her interview "I'm a bit shy in the beginning, then, I open up". Therefore, while the online environment was sufficient to create correct impressions of the other's personality; trust, especially online, emerged as a more sensitive theme.

Immediacy

In the interviews, I asked participants to talk about an instance in their sessions when they felt closest to their conversation partner. Defne said she felt closest when she drew Hale's dream room on paper (Extract 5.3-1 That's a confusing room - session 3). She thought that it was an awful drawing, but they were able to make fun of each other and laugh at their terrible drawings. Thus, for Defne, immediacy was established when she felt comfortable in disclosing a vulnerability, that is, being unable to produce a good drawing. Laughter which concealed the vulnerability was perhaps also influential in increasing immediacy.

Hale said she felt closest when Defne was talking about the spring festival at their university and the opportunity she had the week before to give one of her own songs to

her favourite Turkish rock singer, *Emre Aydın* (Extract 5.3-2 I believe in you - session 4). Hale was quite excited to hear that and suggested that if one day he uses her song in his album, Defne should announce that it was her song. Defne was not optimistic about it and said no one would believe her, to which Hale responded saying she herself would. Defne took this very positively and said, "Except my friend and you". As Hale later stated in her interview, this was when she felt closest to Defne, because she thought Defne considered her as a close friend. Defne then continued talking about her dream of playing an electric guitar behind the singer and Hale expressed her sincere wishes for Defne's dream to come true.

Technological problems

Both participants commented on their uneasiness with the technology. In the interview, Defne mentioned that the worst thing in the sessions was "the tenseness or stress (*"gerginlik"*) caused by the camera". She said she particularly disliked her own camera, because her microphone was in her camera, which was situated a bit further away to transmit the image from a good angle. Thus, she was constantly worried about the transmission of her voice, the angle of her video image (whether from right or left) and ensuring that the camera did not fall off. Hale, on the other hand, complained about the echo she had on her own speech:

(interview)

Hale: And we heard our voices twice online...

M: How did that affect you?

Hale: It was bad.

M: Did it affect how intimate and warm, close you felt?

Hale: No, it didn't affect those but my expression, because I always heard my voice twice... I couldn't speak because... I hear the same thing again, I waited then spoke again... it did disappear in a while

FL and self-expression

Except for those moments when there was a sound echo, Hale thought she expressed herself well. As she noted in her interview, she always found a way to say what she wanted, even if she had to do it in a simpler way or was making mistakes. When we look at their post-task questionnaire data, Table 8 indicates that Hale always felt she could express herself except the first session, where there was audio delay and very little video transmission.

Table 8 Post-task questionnaire data of Case 3

Did you feel you could express your thoughts and feelings?	Defne	Hale
S1	4	4
S2	4	5
S3	5	5
S4	4	5
Did you feel you understand your partner's thoughts and feelings?	Defne	Hale
S1	5	4
S2	5	4
S3	5	4
S4	5	4

1. Never 2. Rarely 3. Sometimes 4. Often 5. Always

However, Defne mentioned (interview) that she could understand Hale, but could not always find the right words due to her insufficient vocabulary knowledge, lack of practice in English and inability to remember the grammatical structures. Defne said she sometimes could not remember vocabulary or grammatical structures and mixed up the sentence structure and felt as if she would not be able to speak. She believed incorrect sentences would cause misunderstandings. In her interview, Defne also talked about an

instance when she struggled to understand Hale and asked her to repeat a few times.

This, she felt, was “quite bad”.

Extract 5.3-3 Sorry, I couldn't understand (session 2)

Lines	Verbal	Nonverbal
1	H: Yes, we can talk about horoscopes.	
2	D: Yes.	
3	H: Are you interested in them?	
4	D: E, what? (.) sorry[	Head movement: closer to screen, reinforcing the meaning of verbal message
5	H: Are you interested in horoscopes?	
6	D: (4) Sorry, I could, I couldn't understand.	Unhappy facial expression. Slightly shrugs right shoulder. Tone of voice low.
7	H: Are (.) you (.) interested (.) in (.) horoscopes?	Slow articulation.
8	D: Ye:s (.) okay, (.) sorry again. E, I'm, I'm not interested in horoscopes.	Leans back, smiles, cheerful tone (suggesting relief).

Extract 5.3-3 illustrates one of those moments when Defne could not understand Hale. In line 1, Hale initiates a new topic, that is, horoscopes and in line 3, she asks if Defne is interested. Defne does not understand and asks for clarification and so Hale repeats her question in line 5, replacing the pronoun “them” with “horoscopes”. Yet, Defne still does not understand and her frustration is observable in line 6, expressed via her facial expression, tone of voice and posture. Hale asks for a third time in line 7 (this time slowly and with clearer articulation) and Defne understands the question. Her relief is expressed by her posture (leaning back), cheerful tone and smile.


In the subsequent sessions, Defne said she relaxed and assured herself that it was normal in initial sessions to make mistakes due to their unfamiliarity. She also avoided being distracted by the things in her surroundings, because she believed “it is difficult to communicate once you lose your concentration and focus, because it is not our native language” (interview).




Gestures


In her final questionnaire, Hale positively evaluated being able to see the gestures of Defne and said, “During the conversation, being able to see what the other person is doing helps the interaction. For example, our gestures were particularly visible while we were drawing, like, the room” (final questionnaire).

Extract 5.3-4 I am bed (session 3)

In this extract, Hale is describing her dream room and Defne is drawing it on paper. Defne asks where to place the windows.

Lines	Verbal	Screenshot
1	H: It's near to the bed	

2	H: from above	
3	D: Near to the bed?	
4	H: Yes, bed.	
5	D: I am bed	
6	D: and windows?	
7	H: Yes.	

8	D: Okay	
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In line 1 and 2, Hale uses her hand gestures to illustrate where to draw the windows. Likewise, in line 5, Defne uses her body as the bed and in line 6, puts her hands above her head to confirm that the windows are above the bed. Hale correctly receives the nonverbal message in line 7 and in line 8, Defne resumes drawing. In this extract, Hale and Defne use almost pidgin English and once they negotiate meaning nonverbally, do not focus on the language anymore. Psychologically, being able to use their gestures to negotiate meaning may be comforting and facilitates interaction (as Hale suggested) when the participants lack the necessary linguistic knowledge or skills. However, one might argue that DVC allows participants to rely on other meaning-making resources too much and do not force them to stretch their linguistic skills. Pedagogical implications of this should be carefully considered. For instance, if participants are expected to work on their linguistic development, task instructions should indicate focus on form and encourage the learners to support each other to collaboratively produce the correct form. In contrast, if the aim of the task is to improve communication skills and strategies, DVC can provide the necessary conditions. Yet, these pedagogical considerations of the balance between fluency and accuracy are perhaps similar to the ones in face-to-face contexts.

Moreover, Hale stated that audio-visual signs allowed her to determine whether Defne would like to continue the conversation or end it. These visual signs included gestures and facial expressions (making an upset face) and audio signs including tone of voice (which

suggests unwillingness) as well as short replies. She said that in text-only interactions, she would interpret delayed responses and short turns, such as okay or only a happy smiley as unwillingness to continue the interaction. Likewise, Defne was also able to interpret the audio-visual cues online. For instance, she was able to decide when Hale was bored towards the end or when she wanted to skip a task based on the look in her eyes and her facial expressions.

Interactivity: follow-up questions, backchannels, silence and interruptions

In general, Hale asked follow-up questions relevant to what they were talking about which led to more talk. She also provided frequent nonverbal backchannels such as facial expressions and empathetic expressions (such as oh!, Really!). Defne's gestures and facial expressions were generally less expressive and she asked few self-initiated follow-up questions and provided less feedback, sometimes none. Defne's follow-up questions were usually either already set by the task (thus were in a way an attempt to continue to the next step) or were redirections of Hale's follow-up question.

(interview)

M: How did you encourage Defne to talk more?

Hale: For example, I initiated different topics related to the tasks... Like, she said she likes music, I asked who, which song do you like and I tried to make her talk more.

She also asked the same question to me, she made me talk too.

(interview)

M: What would you like to say about encouraging you to talk?

Defne: When she encourages me I think she is closely interested in my feelings, thoughts and I like it.

M: Did Hale encourage you to talk more?

Defne: For example, she asked questions, when I said I have a guitar, she asked do you know how to play; when I said I compose music, she said really!

The sessions showed similar patterns in terms of silences between turns and fluency of each participant. Especially in the initial session, they tolerated silences and did not end the conversation once a topic was exhausted. They allowed each other time to think about a new topic or a follow-up question to continue the interaction.

In their post-task questionnaires, both participants reported that they always felt involved in communication in all sessions. In her interview Hale said that providing backchannels, feedback and comments about each others' utterances (verbal and nonverbal) made her feel that both were involved in interaction.

(interview)

Hale I felt involved in the interaction.

M: How?

Hale: For example, I was complaining about my brother, was telling about our quarrels. And she reacted with a smile, her reaction was right, because I would have also laughed at the way we communicate. Her smile means she was listening and understood what I told. I mean she was involved. I also comment on what she says. We were both involved.

During the online sessions, there were a few interruptions, especially for Hale and and this led to accounting and apologizing for those. In all interruptions, they explained where they were going if they needed to leave the computer, what they needed to do and apologised for the inconvenience.

In the interview, Hale said she was not able to concentrate totally on Defne due to interruptions such as somebody talking to her, knocking on the door, or phoning her.

When asked if she thought Defne was aware that she was not listening, Hale suggested she might not have been at the time, but she perhaps was when she asked something

about what she had just said. Hale thought Defne would not feel good about it, but also said perhaps it did not affect their relationship because she apologised for the interruptions and Defne repeated what she said and accepted her apology.

5.4 Case 4: *Emre (male) and Osman (male)*

Emre was 20 and registered at SU. He considered himself as an upper-intermediate learner of English. Emre's general use of internet included going online once a day, predominantly writing to his friends in Turkish. He said he was chatting with people all around the world using a website called interpass. He preferred to go online at midnight, which was when he could find more Americans online. He was also subscribed to a mail group of language learners worldwide. All his online communication in English was written. In Turkish, he used audio and video to talk to his family and occasionally to his very close friends.

Emre had a desktop computer with external camera and good quality internet connection in his hometown where he connected for the first session. However, he had to connect from an internet café for the last three sessions. The quality of audio and video transmission at the internet café was sufficient. The camera was separate and attached to the desk. It was not possible to move it around, except to change the angle. Emre complained about the noise in the internet café which sometimes affected how well he understood his partner. He thought Osman was more relaxed at home than him in the internet café despite lower quality internet connection. Thus, Emre preferred going online at home, if he had the chance. Throughout the sessions, Emre used headphones and the microphone attached on the cable of the headphones. For better voice quality, he had to keep the microphone close to his mouth. This restricted his posture which he negatively perceived in terms of his awareness of how he projected himself. He thought Osman was relaxed, leaning back and talking as if they were sitting at a café, while he himself was sitting up, holding the microphone, in a more formal posture “as if talking to the prime minister” (Figure 13).

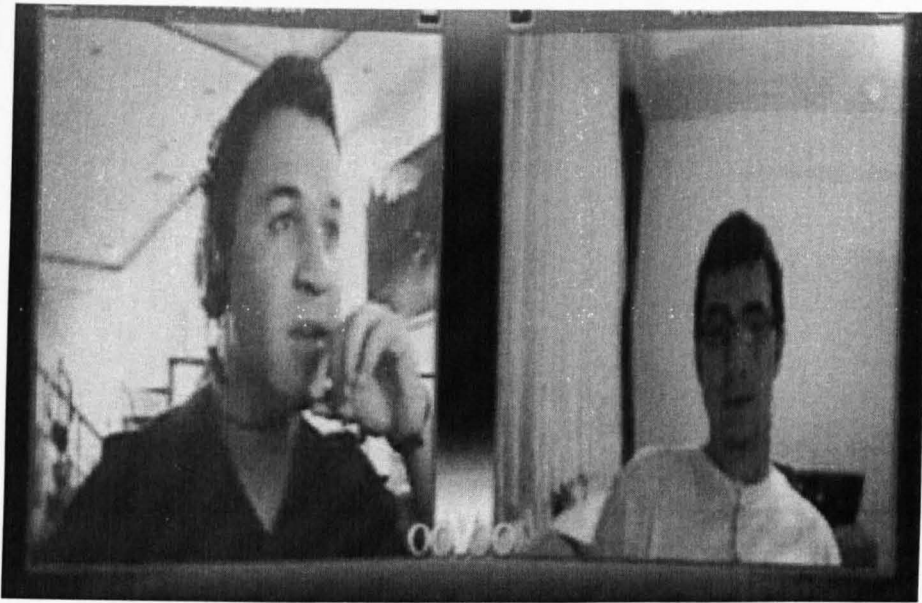


Figure 13 Posture in Case 4

Osman was registered at NU2 and was 19 years old. He described his level of English as advanced and said he used the internet many times a day. He was mainly using MSN/Windows Live Messenger for his online interactions and like Emre, preferred audio and video communication only to talk to his family and few close friends. He knew some American exchange students who had visited his university and he was in touch with them on e-mail. He had internet at home and the connection quality was adequate for the sessions. He had an inbuilt camera and microphone and used headphones to prevent echo. However, Emre could still hear an echo and found it quite weird to hear himself talk, especially in English.

(interview)

Emre: Well, you are also speaking English, well, I mean, you speak, let the words out of your mouth, then the same echoes, you hear that again, I mean you think, is this how I speak? ... you talk, then you wait to hear the echo.

Osman said he wanted to participate in the study, because he wanted to learn more about what students of his age in other universities were doing and learning. He believed that if they were better he would be able to compare himself with them and improve his own skills, both linguistically and socially. While Osman implied in his interview that he neither took participation in the study too seriously nor prepared for the tasks; he also mentioned how he proudly told his friends, who were studying in another university, about his participation. Similarly, Emre wanted to participate in the research to test and improve his EFL skills. Other stimuli for his participation were to meet new people and to help me in my research.

Both participants thought the worst thing about the study was related to technological problems; for Emre, it was the occasional internet connection problem and for Osman, it was the need to wait for the recording to be processed by the software after the interaction. They both agreed that the best thing about the study was to meet a new person. They also both said that they felt relaxed about talking to another Turkish student. Emre expressed his anxiety before the study related to his language skills. He was pleased that he got used to using English and “everything went simply and nicely”. On the other hand, Osman expressed his discontent with using simple sentences “at elementary level”. He clearly expressed his preference for a foreigner or a teacher, who would “inspire” him, or in Vygotskian terms, provide him with scaffolding. Osman said he would try to produce better language accommodating to and mirroring the teacher’s or foreigner’s fluency and sentence construction.

First impression

Emre’s first impression was positive. At first sight, Emre felt that Osman would be better at speaking, but then he thought Osman was very warm and made him feel equal in terms of linguistic levels. Yet, Emre also admitted that he thought Osman’s FL skills were slightly better and thus he let Osman do most of the speaking. He thought they mingelled quickly,


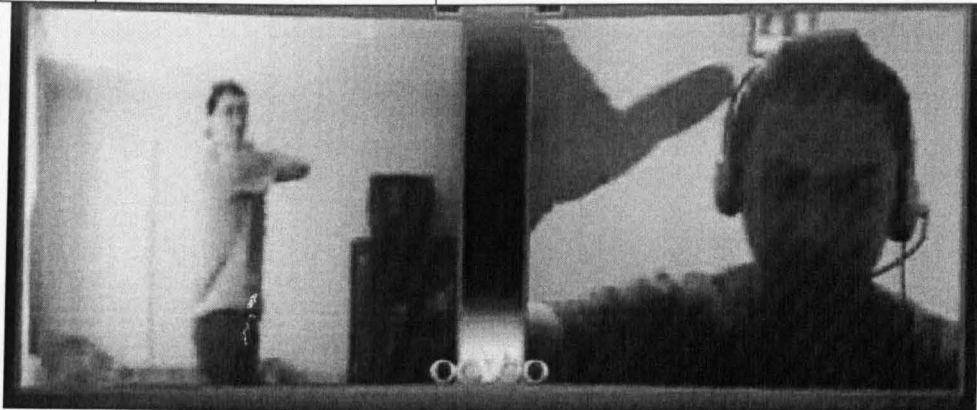
understood each other and helped each other to continue the interaction by asking questions when stuck.

Osman's first impression was slightly negative. He mentioned in his interview that he realised how good an education they were receiving and also that university entrance examination grades also more or less determined the actual proficiency levels. He made generalisations and concluded that students at SU University, which required lower grades than NU2 at entrance examination, were less social and personally less developed. He found Emre childish, not mature enough and assumed he had lived with his family all his life. He perhaps formed these impressions also based on what Emre told about himself, including being shy, not having a lot of friends, his excitement of as well as problems he had about living in a dormitory away from home for the first time. Osman, on the other hand, was confident, liked spending time with people who were sociable and had already experienced living away from home.

Although Emre and Osman were able to form impressions about their personalities via their DVC interactions, physical qualities, such as height, were less obvious. In his interview, Emre talked about his surprise to learn that Osman was that tall, which was not apparent from the video. When Osman mentioned that he was tall, Emre specifically asked him to get up and show his height.

Extract 5.4-1 I am very tall man (session 1)

Lines	Verbal	Nonverbal
1	O: I I'm I'm very tall man, about one metre and 88 centimetres.	
2	E: Wow! Wow!	
3	O: So, er	(laughter and gesture showing he's big)

		
4	E: Can you stand up now?	
5	O: Okay, I will show you my talling.	laughs, stands up and shows his height
6	E: You are very tall	okay gesture
		
7	E: Wow!	
8		O: laughs, gets back and sits down
9	E: Do you play basketball?	O: puts headphones on

Emre shows his surprise both verbally (in lines 2 and 7) and nonverbally (in line 6).

Osman needs to remove his headphones to get up. Emre might be using his gesture intentionally, as Osman would not be able to hear his feedback without his headphones.

Smile

Emre and Osman smiled quite a lot, especially during the initial sessions. They stated that they smiled in order to make the other feel more relaxed “as if [they] met and have spoken before” (Emre), to increase warmth and intimacy and to break the ice (Osman). They seemed to smile more especially during the initial sessions. In my observation notes for session 4, I noted, “no smiles at all in this introduction!! Compared to 1st session, in particular!”. Potential reasons for fewer smiles could be lesser need to establish warmth and intimacy or to sustain future contact as it was the last session.

Interestingly, Osman admitted that his smiles were not sincere. He was not content with the feedback he was receiving and he said his smiles were artificial. He believed he provided good feedback and thus Emre's smiles were genuine. This was not the only time Osman expressed unhappiness about Emre. When asked (after session 4) if they would like to continue the activity with the same partner, Emre replied with “sure, why not”. Osman, on the other hand, said he would have preferred someone else, or would have liked to have different interlocutors each time. He said he would have liked to talk to someone more active and who would talk fluently without hesitations.

Overlaps

In terms of interaction patterns, Emre was pleased about Osman's follow-up questions. Osman, instead, felt the feedback was not enough, that is, the feedback had not improved his linguistic proficiency or add anything new into the conversation. He felt the conversation fell into a silence when he did not speak. This also reflects Osman's (in) tolerance for silence. He felt “the need to continue one after another without gaps” in pair interactions. Osman mentioned that group interactions gave him “space to breathe, to construct the sentence in [his] mind and choose the best words”. Moreover, interruptions in the flow prevented Osman from feeling they were in the same room. He emphasized that fluency did not mean no gaps or silences in communication, but he would expect the

gaps to be filled with “meaningful utterances” which are informative of the ideas or feelings of his partner and which are not only short responses to his initiations.

Emre thought it was more difficult to carry out the conversation online, especially due to the lack or ambiguity of audio-visual conversational cues for turn-taking. He argued that conversational cues were sometimes not simultaneous which resulted in overlaps.

Extract 5.4-2 We have some festivals (session 2)

Lines	Verbal (underlines refer to overlapping speech, italics to nonverbal behaviour)	Nonverbal
1	O: We have some festivals <i>err today's, nowadays</i> <i>in our err university, so: there is a big fun err</i> <i>between the pupils here (.)</i>	<i>E: head nod</i>
2	O: <u>and err:</u>	
3	E: <u>Ye:s</u>	<i>E: head nod</i>
4	O: just we are having these times, (.) <i>err enjoying</i> <i>it (.) err and nothing else (.) so (.)</i>	<i>E: head nod</i>
5	E: Yes (.) <u>err do you know which sin</u>	
6	O: <u>Okay then err let's start our (1)</u>	<i>head movement at the end</i> <i>implies "I am listening"</i>
7	E: Err <u>okay let's start</u>	
8	O: <u>Yes (.)</u> do you know	
9	E: <u>err I (need) to ask you</u>	
10	O: <u>Okay, okay (xx) asking</u>	
11	E: a question err	
12	O: <u>Yes, yes, yes, I'm listening</u>	
13	E: <u>Do you know which singer err</u> coming your country, your town, your university? (1)	

14	O: Which <u>err</u> ?	head movement implies "I did not understand"
15	E: <u>In spring</u> festivals	
16	O: (.) <u>Ha</u> : yes, yes	O: <i>Head nod</i>
17	E: <u>Which singer</u> ?	
18	O: Hmm, yes, err, I, if, err, as far as I know err there are four singers	

In this extract, Emre tries to ask a question about the off-task talk introduced by Osman, that is, the spring festival at Osman's university. When he finishes in line 4, Emre wants to talk more about the festival, but his speech overlaps with Osman's attempt to move on with the task. Emre's interruption here looks appropriate as Osman has finished his sentence and left a gap. However, he does not leave much space for Emre to take the turn and perhaps Emre's initiation with "yes" and a pause in line 5 is transmitted with an audio delay which causes overlap. This overlap continues during the next 3 overlapping sequences (lines 7-8, 9-10 and 12-13) before Emre can finally ask his question. These overlapping turns are perhaps caused by audio delay and are reinforced by Osman's insistence on saying something rather than keeping silent for Emre to take the floor. Overlaps continue in lines 14-15 and 16-17. There may also be a delay in video transmission, which would make it even more difficult to rely on nonverbal behaviour. Pedagogically, it would be potentially beneficial to increase learners' awareness of audio and video delays in DVC interactions and the issues these delays might create for turn-taking. Learners could be advised to tolerate silences more than they would do in face-to-face situations and to take potential influence of delays into account.

My observation notes of their first session illustrate the same issue:

(observation: session 1)

They do not tolerate silences, especially Osman. There are overlaps towards the

end. Emre has a bit of audio delay and Osman does not tolerate that gap and starts talking, either with a new topic or continues his comment. Emre seems to be aware of the situation and adjusts his talk as required. Especially towards the end the audio delays interrupt the flow.

Both Osman and Emre were much more tolerant of silences in session 3 when they were drawing each other's room on paper. For example, there was a 12 seconds silence when Osman was describing the objects in his dream room and Emre was drawing. Osman did not initiate a new turn during this time because he was able to see that Emre was busy drawing. Thus, video feedback is useful in interpreting silences and eliminating ambiguities in DVC, especially compared to voice-only online communication.

Boredom

Emre felt he was bored in the third session which asked them to draw their dream rooms on paper and a collaborative drawing on an online whiteboard. Osman also mentioned that he was a bit bored with the drawing task, and in the fourth session when they were planning a day together. Their reasons for boredom include the following:

Emre:

- FL: "We struggled a bit when designing, describing, because there were some expressions like triangle, rectangular, colours, and so on. I couldn't remember some furniture".
- Multitasking: "Sometimes I couldn't remember some words and were baffled a bit trying to look up in the dictionary".
- Physical environment: "The only boring thing was the noise in the internet café, sometimes I couldn't understand Osman. ... Also I heard the echo of what I said, it was weird".
- Tool / connection: "Another bad thing was ... We had miscommunication when drawing online. Maybe he was drawing fast, or I was slow, but the numbers [of

objects drawn] were not equal". When drawing online, Osman and Emre had a problem with the whiteboard. At some point, the board was not synchronized, that is, they could not see what the other person was drawing.

Osman:

- Attitude towards task completion: "We are drawing pictures, or he did not understand the task as you explained and that is boring. For example, you said write what you want to do. He just says the name of the place. You have to make a meaningful sentence. I then show an example, I add to the name, for example, we went to *Dolmabahçe Palace* and enjoyed it. He does the same thing a second time and that is boring".
- Feedback: "I talk, then wait for feedback. That is boring. In our last session, for example, we want to visit [NameOfCity3]. I say let's do this and that and expect him to suggest something, to add to what I say, such as yes, that place is really nice. He says okay, I wait, then I say let's also do that. Again no answer and I get bored".

In sum, Emre and Osman got bored due to a lack of communication and compromise. Osman did not negotiate his expectations of the task beforehand and Emre did not talk about the connection problems he was having. Osman continued to imply satisfaction with artificial smiles, while Emre willingly handed over power and kept silent thinking Osman was a better FL speaker, probably because both wanted to ensure smooth interaction (perhaps trying to be good research participants).

Development of friendship

Emre was positive about their relationship throughout. He thought the interaction was very good and Osman felt like a friend. He mentioned his apprehension about speaking English and about having an unfamiliar interlocutor at the beginning and his subsequent relaxation:

(interview)

Emre: ... first, I was like, I thought, we're going to speak in English, he is someone I've never met, I don't know him, what are we going to talk about, time will not pass.. I felt like that especially in our first session, I looked at my watch, first, second minute. We continued speaking ... then I realised it had been 30 minutes, how quick time went, I didn't even notice it!

In contrast, Osman was not that satisfied with their interactions. He did not feel he knew Emre well and they were not very close. From the beginning he assumed this was a temporary friendship. Below are extracts from the participants' post-task questionnaires, showing Emre's satisfaction throughout and Osman's change in feelings depending on the task.

Table 9 Development of friendship in Case 4: quotes from post-task questionnaires

	Session 1
Emre	This was the first time we met, but we talked like old friends.
Osman	I liked him personally, but in terms of speaking skills, I think education is generally parallel to the entrance scores of the universities. (Emre's university required lower scores)
	Session 2
Emre	I felt involved in communication. My friend really understood what I said and asked me questions about them.
Osman	This was more relaxed compared to the first session and getting to know my partner means the start of a distant but new friendship. ... We were again very close. We talked about the characteristics of our best friends.
	Session 3
Emre	The session was very good. Sometimes due to some noise I felt it difficult to

	understand my friend.
Osman	Well, we are just talking; I can't say I share a lot. ... This session was not very close, I don't think there was anything that would require being close.
	Session 4
Emre	This session was longer and fun as it was the last session. We had a lot of fun.
Osman	My impressions did not change. ... We can understand each other easier as this is our 4 th interaction.

5.5 Case 5: *Eda (female) and Ali (male)*

Eda was 18 and registered at SU. She considered herself an upper-intermediate learner of English. For all sessions she was online at the flat she shared with her friends. She reported that she went online a few times a day and was mainly using MSN/Windows live messenger to chat to her friends. These interactions included general daily chats and rarely involved any English. She did not communicate online with native speakers or foreigners; she preferred face-to-face communication. She was living in [NameOfCity5], which is a touristic city and thus provided ample opportunities to interact with tourists in the summer. She occasionally communicated by audio and video online, except when talking to her family and her boyfriend. She had a laptop with an inbuilt camera and microphone. She expressed her discomfort with video interaction, especially when she was asked to look or when her interlocutor looked straight into the camera. She described the feeling as akin to "when a stranger catches your eye while dancing" or as if someone was watching her secretly. She wrote the following in her final questionnaire:

(final questionnaire)

looking at the camera: I don't have any idea whether it is important or not, but I can't look at the camera and when somebody directly looks at the camera while speaking with me, I feel very anxious, sometimes nervous as if s/he is watching me under the rose, secretly, without my permission. Even if i avert my eyes from the screen, I get mad, irritated. (student's own English)

Ali, 20 years old and registered at NU2, lived at a private dormitory and used the desktop computer in his room. His camera was separate and he used external headphones and a microphone. He described himself as an upper-intermediate learner of English. He was keen to improve his speaking skills, yet he was indecisive about his participation in the study due to his apprehension about unprepared speaking activities in English, especially in class. Prior to the study, he asked for details regarding the tasks, who he would talk to,

which university she was from as well as a trial on DVC in English with me. I assured him that there would be no adverse consequences if he wanted to drop out either right away, during or after any of the sessions if he felt uncomfortable. He seemed to relax following our trials and decided to join.

His use of internet was very much like Eda's; going online several times a day, chatting to his friends on MSN/Windows live messenger, never in English and occasionally using audio and video. He used video only when talking to his family and his girlfriend. Ali was very sceptical about online relationships as he was disappointed to meet his girlfriend face-to-face, whom he had only known online. He argued that people had online masks and would only show their best sides. For him, face-to-face contact was an absolute necessity to get to know someone. Ali's cultural assumptions about the use of camera partly confirmed Eda's feelings. He believed that if a girl switched on her camera when talking to a boy, this would already mean that she had allowed him into her personal space.

(interview)

Ali: People have their physical personal circles; the nearest circle is 0.25 meters away, and encloses the closest people. You cannot feel that on the camera, but you can partly say that you enter the other person's most distant personal circle. Because these days, turning on the camera is perceived as a bit, I can say it is a bit difficult, especially for women. If a woman turns on her webcam to a guy, that means she had definitely allowed him in her personal circles.

We had trouble arranging the sessions due to internet connection quality and had to reschedule the sessions a few times. As Ali was living in a dormitory internet connection slowed down a lot at peak times causing disruptions in audio and video. The solution was to arrange interaction earlier during the day when internet connection seemed better.

Even then, the bandwidth was sufficient only to allow two participants at a time, hence I was not present as an observer in their sessions, but was online to provide help if needed.

During their DVC interactions, Eda and Ali used plenty of Turkish, using it as a resource to express themselves better. There was also a high amount of text-chat in their interactions, some in Turkish, some in English. I look at their use of Turkish and text-chat in more detail in sections 6.6.1 Code-switching and 6.6.2 Mode-switching.

Smile, silence and self-adaptors

In terms of their personalities, Eda was generally a quiet person and in her interview she said she could express herself better in writing than in speech. Ali said he was also a quiet person and that he learned how to get on well with girls during the last five years of his studies (language majors at school are mainly female). He developed his own set of skills for better communication; including use of names to increase closeness, use of praise and underscoring important things for his interlocutors to attract their attention and motivate them to talk, self-disclosing to show appreciation and trust, to increase warmth, and to elicit self-disclosure from his interlocutors, finding and emphasising common interests and characteristics, providing backchannels and strategically using his smile to ensure a pleasant talk and interactional synchrony, particularly when talking to females.

(interview)


M: How important is smiling?


Ali: Smiling is very important for me, because especially with my dimples, it is a bit more... And also most of the people around me are female, I have to act a bit for that, dimples are useful then. Second, the other person acts a bit like the way you are.

Eda also mentioned that smiling was the most important thing in their interactions. There were lots of smiles in their interaction. Eda said she was a bit worried about

misunderstandings, as they did not know each other beforehand, and about speaking in English. In this sense, she felt relaxed when Ali smiled and tolerated her slow speech and silences. That, in a way, also meant that he was laid back, which was also observable from his posture, too. He was reclining in his chair, looking around, and also using Turkish whenever stuck.

Extract 5.5-1 That's all (session 4)

Lines	Eda	Ali
1	((head resting on left hand))	That's all. (.) You?
2	Me? Err ((laughs)) ((touches mouth))	((laughs))
3	(3) ((head resting on left hand until the end with occasional movements to touch face or to gesture)) 	((touches eyes))
4	Err, In my free time (.) I: ((rubs eye)) like[
5		Slee:p
6	((smiles)) Yeah, it's a: (1) ((hand forward))	((smiles))
7	not activity (.) I like ((touches eyebrow))	((laughs))
8	sleeping (that's it) I don't	((smiles))
9	sleep in my free time ((smiling))	life style ((smiling))
10	(xxx) ((rests head on left hand))	
11	I think err: so much sleep is (.)	

12	a: (1) waste of time ((head resting on left hand until the end))	((scratches cheek))
13	I know that (.)	((hand touching mouth))
		Wow ((index finger on left cheek))
14	Ye:s ((laughs))	((laughs)) ((index finger stays on left cheek))
15	(2)	((hand touching chin))
16	In my free times, I (.) listen to music ((rubbing eye and eye brow))	((hand touching chin))
17	err: (2) err: go to somewhere, (.) (cafes) or (.) some place to: (.) eat or drink (.) with friends (.)	((fingers around or on the lips)) 
18	err: (1)	((fingers around or on the lips))
19	I don't like (.) shopping err: unlike (2) many (.) woman <u>(1) or women</u>	((nods))
20	(4) ((looking down, licking lips, perhaps indicating thinking))	((fingers around or on the lips))
21	I like playing (.) err: (.) ((looking up))	((fingers around or on the lips))
22	Volleyball (.) or (x) play football <u>sometimes</u>	((smiles))
23	(1) ((smiles)) err:	((grins, shows thumb up))
24	<u>If I (.) find (.) err: some children in the</u>	((fingers around or on the lips))

	<u>street</u>	((smiles))
25	I can (.) play (.) football with them (.) also (1)	((fingers around or on the lips)) ((moves camera, more of his torso visible))
26	((laughs))	((fingers around or on the lips)) ((laughs))
27	err: (quietly) (3)	((fingers around or on the lips))
28	I said listening to music (.) sometimes	((fingers around or on the lips))
29	<u>I go to cinema</u> ((touches eyebrow)) (1)	((touches left right ear of headset))
30	err: (5)	((fingers around or on the lips))
31	that's (2) a:ll ((quietly)) (3)	((fingers around or on the lips))
32		((smiles)) (2)
33		<u>That's (.) a:ll</u> ((smiles))
34	(.) <u>That's (.) a:ll</u> ((laughs))	((laughs))

Extract 5.5-1 illustrates typical interaction between Eda and Ali with an abundance of silences, smiles and synchronous laughter. Ali listens to Eda quietly without interrupting and provides visual backchannels with his head nod (line 19), smile (line 22) or gestures (line 23). They achieve interactional synchrony, and perhaps intersubjectivity, by simultaneous laughter (lines 2, 14, 26, 34). Smiles are not related to any particular joke, teasing or humour, but they index understanding. An exception to this occurs in line 31. Eda silently and with hesitation says "that's all" and in line 33, Ali repeats the same utterance mimicking Eda's style. Although this repetition could have been perceived negatively as mockery, Eda takes it positively, repeats the same utterance and they both laugh. Humour in this sequence is very subtle and mostly exchanged and shared via the positive ambience and smiling faces.

The interaction between Eda and Ali is also marked by plenty of self-adaptors (e.g. lines 2, 3, 4, 7, 16, 29). "Self-adaptors are nonverbal acts in which an individual manipulates her or his own body. Scratching, rubbing, and hair twisting are common self-adaptors. ... we often see people "bite away" in front of total strangers" (Richmond et al., 1991, p. 62). They "are good signals of the sender's physiological and psychological state" (Afifi, 2007, p. 41). Self-adaptors are usually linked to anxiety, fear of communication, psychological discomfort, self-assurance, shame, concern for self-representation (Knapp, 1980; Richmond et al., 1991).

Self-adaptors displayed in Extract 5.5-1 could be interpreted as lack of comfort due to communicating with a stranger. Although this interpretation could be true to some extent, I find it unlikely because the extract is taken from session 4, after which both participants stated that they had got the chance to know each other during their interactions. They are not total strangers and subtle humour as well as interactional synchrony implies shared understanding and familiarity. Another interpretation could be physical discomfort. Eda was not comfortable with feeling her interlocutor's gaze via the webcam and Ali was online in his dormitory where people were sometimes around who could overhear his interaction in FL. Self-adaptors in this extract could also be due to discomfort and/or anxiety created by lack of sufficient linguistic skills, demonstrated in slow speech and silences (as well as code-switching during the rest of their interactions). However, their posture and self-reports in post-session questionnaires and interviews, do not suggest much anxiety. Hence, rubbing eyes, touching cheek and lips, resting head on one hand could be for self-assurance and/or due to a concern for self-representation. Accompanied with frequent smiles, they can also be interpreted as face-saving behaviour for lack of expression and accurate projection of the self. Although self-adaptors are believed to decrease immediacy because "they can make the other person uncomfortable" as people who display self-adaptive behaviours "never seem to be relaxed" (Richmond et al., 1991, p. 213), it is difficult to suggest that immediacy is decreased in this extract. On the contrary, as both

participants display self-adaptors, they perhaps achieve empathy and interactional synchrony.

Best, worst, warmest

When asked about the worst aspect of their sessions, both participants complained about internet connection. Ali mentioned feeling detached when talking about horoscopes as he did not like the topic. And Eda felt she would get nervous about speaking in English and did not feel good when she could not find an equivalent of what she wanted to say in English.

Both Eda and Ali felt most intimate and warmest when talking about personal characteristics and their hometowns which created curiosity and involved self-disclosure. For Eda, talking about their personalities was fun, because she was surprised to hear that Ali's first adjective about himself was attractive, which made her curious about what he would say next. For Ali, talking about themselves was very personal and involved lots of self-disclosure, which was why he felt closest to Eda and most sincere. The city of Eda's university was Ali's hometown. They were able to talk about places they both knew. Ali felt as if they were in the same room when he was talking about his hometown.

However, when Eda was talking about what could be done in her hometown, participants had different recollections. While Eda was positive, Ali said that he was really bored. Ali said during all that time he was not able to hear everything Eda was saying, "Due to audio interruptions, the interaction flow was sometimes disrupted, but as I said I could join based on what she said last ... especially in the last session ... if she said 100 things, I can only remember 3". Moreover, he found Eda's speech too long (almost half an hour) and said he lost his concentration. Ali also mentioned that when talking Eda sometimes asked if he was able to hear, because "she could not directly ask if [he] was interested".

He told her that he was able to hear her even though he was not listening. In his interview he said:

(interview)

Ali: Especially in the last session ... she asked if I can hear, I said "yes, I can, don't worry", what could I do! ... I said hi, okay, go on ... I nodded, behaved as if I am listening, when she smiled I smiled back.

During the interview, Eda mentioned that Ali asked follow-up questions which made her feel valued and important. Eda believed Ali was flexible regarding completion of the tasks and they went off-task a lot. This implied that Ali was sincere and that the interaction was voluntary rather than just a requirement for the study. For her, asking follow-up questions also helped continue the interaction. Even when they did not have common interests, they still asked questions to learn more about each other. This encouraged Eda to talk more.

(interview)

Eda: For example, we don't say like oh it's been 30 minutes, 40 minutes, let's finish ... it was not like we have to talk about this, about that. He says something or asks something related to what I had said. ... for example, he asks football, I ask why don't you like it, like he doesn't like football. I ask why, he says I just don't like it.

Development of intimacy

Both participants said they would like to continue the sessions with each other. They thought they had the chance to get to know each other. For Ali, the more you knew someone, the more you would feel intimate and get close. Their impressions about each other were positive at the beginning. Following the first session, Ali reported that he found Eda to be a quiet and optimistic person who was pleasant to talk to. He felt the interaction warm and sincere and he was able to say his opinions openly. Likewise, Eda reported that

Ali had a positive impression on her as a friendly, sincere, warm, cheerful, tolerant and humble person. Their positive perceptions continued as they had more sessions together. For instance, at the end of the third session, Eda wrote that she, then, had constructed an image of Ali as a person and that the session had been fun with lots of laughter which relaxed her. In their post-task questionnaires following the last session, Ali and Eda wrote the following:

(post-task session 4)

Ali: My impressions of course changed in time, I found her warmer and liked her more as I got to know her. As you know more about the person, intimacy and trust increase. ... Our talk and shared sense of humour is an evidence of warmth between us.

Eda: I got know him substantially, if not totally. I know what he likes, what he does etc. I think I can talk to him if I have a problem, I suppose these are first steps for trust. I always felt that the interaction was warm and intimate, sometimes we went off-task, we were not like we have to talk about this or that like a robot.

Chapter 6 Social presence

In order to explore social presence in language learner interactions via desktop videoconferencing, the previous chapter described the context of each of the five cases, outlined what was specific in each situation and exemplified salient features observed in the desktop videoconferencing sessions of each case. In this chapter I provide a cross-case analysis of the data obtained mainly from interviews, but also from questionnaires and DVC sessions to further understanding of social presence as it was experienced by the participants.

6.1 *Introductory remarks*

The main ideas that will be advanced in this analysis are:

- There are three main components of social presence (SP) via Desktop Video Conferencing (DVC) in a foreign language (FL) learning context. These are similar to categories proposed by (Rourke et al., 1999), but with distinct sub-categories (components). The existing components of social presence will be analysed under the following categories:
 - Building immediacy and intimacy (Affective)
 - Sustaining interaction (Interactive)
 - Establishing intersubjectivity (Cohesive)
- The existing components of social presence operate, I will argue, within a context comprising emerging issues of:
 - Multimodal affordances of the tool and/or medium
 - Beliefs about online communication
 - Foreign language learning

I will explain these emerging concepts of social presence in turn.

- The emerging issues are interrelated to participants' states of nervousness, anxiety or relaxation.

In the rest of this chapter, I first provide participants' comments about the study in order to provide an overview of participants' perceptions of the context (section 6.2). Then I analyse existing components of social presence in section 6.3 and the emerging concepts specific to the particular context in section 6.4. I then briefly discuss the outcomes of the quantitative results (section 6.5) and finally present multimodal analyses of three salient features (code-switching, mode-switching and gaze) of social presence observed in the DVC recordings (section 6.6). Finally, I provide a proposed new framework to analyse social presence in multimodal online environments (section 6.7).

6.2 *Participants' comments about the study*

In this section I will illustrate participants' comments on three dimensions as elicited from the interviews and post-task questionnaires.

- **Comments and challenges:** What were the worst and best features of the study? What do you think about ooVoo? Was it easy to use? Do you think the tasks affected your interactions? If so, in which ways?
- **Pedagogical suggestions:** Would you participate in a similar collaboration if conducted as part of your degree? What would you suggest to the organisers? Would you organise a similar collaboration via Desktop Video Conferencing (DVC) when you become a teacher? If yes, what would you do differently?
- **Preference about native language of the partner:** How did you feel about talking to another Turkish speaker in English? Would you prefer a native speaker? Would you prefer a non-native speaker who is not and/or does not know Turkish?

Comments and challenges

All participants welcomed participation in the study, and especially the opportunity to meet a new person and improve their foreign language skills. For example, Filiz mentioned that she had agreed to continue her interaction with Nil after the completion of the research. Overall, the participants believed that the main benefits of the study lay in social relations and linguistic skills.

Tasks

Participants were generally positive about the tasks and enjoyed them. Emre felt involved in the interaction because “I had a nice chat with my friend and we told each other what we wanted” (post-task questionnaire). They thought the open-ended tasks allowed them to talk freely, go off-task when needed, and continue the interaction. For example, for Zeynep the tasks allowed opening up the conversation and triggered lots of comments and experiences.

Participants all agreed that the tasks were useful for getting to know each other and for projecting their identities, because they enhanced feelings of closeness, relaxation and intimacy. Moreover, Nil believed informal tasks about their personal lives allowed them to share their emotions. For Osman, the tasks were sufficient to promote intimacy because they were personal as opposed to being related to issues such as global warming. Other ideas on task topics were as follows:

- Topics related to participants' interests can be more enjoyable (Osman, interview).
- Topics may not guarantee enjoyment. For example, Osman and Emre did not like drawing their rooms much, while Ali said he was bored when Eda was talking about her hometown, which he believed took too long.
- Topics may be determined by the identity of the interlocutor (such as gender, cultural background) or the level of relationship between the participants. For

example, Hale said she would not discuss religious views with people she did not know.

Participants had different attitudes towards task completion, management and preparation. For example, Eda positively perceived her partner's (Ali's) flexibility about task requirements and completion. While Nil reported that she prepared for the tasks beforehand like coursework, Osman said he had a relaxed attitude and just had a brief look at the task 10 minutes before the session. Osman thought he would also have liked to have discussion tasks which would require prior research on the topic. He believed this would have made them approach the task and the study more seriously. Yet, for Ali, personal exchange tasks which did not need any preparation were ideal because tasks which require knowledge of certain topics "would create distress", in other words issues of power, unless both partners have prepared equally. Thus, there was individual difference in participants' attitudes towards task preparation and perception of topics. An intention to approach the task more seriously (such as Osman's) could be perceived by the other interlocutor as dominance, especially if the latter is not equally prepared for the task.

Tool (ooVoo)

Regarding usability of the DVC tool (ooVoo), although all participants were new to using it, the common perspective was that it was very easy and fun to use, and was similar to other tools they were already familiar with (MSN messenger and Skype). In relation to technical aspects, Deniz emphasized in his post-task questionnaire that the audio and video quality supported by the tool was good and it was a bonus that it recorded the entire interaction (the latter was also highlighted by Eda).

Challenges

Linguistic skills: Deniz, Filiz, Hale, and Eda mentioned difficulties related to foreign language (FL) skills. While Deniz generally commented that sometimes they were unable

to understand each other due to FL use; Filiz and Eda complained about word level difficulties (not being able to remember or find an equivalent term) and Hale about her grammatical mistakes. Eda also reported her initial fear of making mistakes and not being able to speak in FL at all.

(post-task questionnaire following session 4)

Eda: The worst feature of the study was that some things do not have exact English equivalents or at first I had thought I might not be able to speak and make mistakes.

Desktop Video Conferencing (DVC): Participants reported several challenges regarding their DVC experience which included inadequate initial knowledge of how to use the tool (Filiz); audio delay causing turn-taking problems (Zeynep); slow connection speed or loss of connection which decreased audio and/or video quality and interrupted communication (Hale, Defne, Emre, Ali, Eda); and waiting for the DVC tool to process the recording of the session to be saved for research (Osman). (The time to process and save the interaction on the local computer varied depending on the length of the interaction, capacity of the hardware and internet connection. For example, an hour long interaction took about 15 minutes to process with a 2.2 GHz duo processor with broadband internet connection.)

Scheduling: Deniz reported scheduling problems for the sessions. Although other participants did not report any complaints, for all cases it was difficult to arrange time slots when both participants were available and rescheduling was frequently necessary.

Physical environment: In his post-task questionnaire, Deniz reported that he was not relaxed in the physical environments (a friend's house and internet café). Emre and Zeynep also expressed their uneasiness of being in an internet café during the DVC sessions. This issue is further discussed at various points under multimodality (section 6.4.1) and beliefs about online communication (section 6.4.2).

Pedagogical suggestions

Different DVC partners

Deniz, Zeynep and Filiz suggested that having different partners would have been better. While Zeynep suggested in the interview that she would like to meet new people, Filiz largely raised her frustration about feeling stuck and restricted in terms of the things to ask and learn about her partner. She would have liked a variety of perspectives of people from different cities and cultures.

Tasks, length and frequency of session

Participants suggested having more frequent and better scheduled sessions (Deniz); choosing an enjoyable topic for the first session (Nil); assigning easier tasks and shorter sessions or adjusting these according to the level of students (Emre); using different topics and ensuring broader interaction (Osman); including topics of interest to students such as visuals for interpretation, practical scientific topics, songs or stories (Eda).

Gender of interlocutors

There were two cases in which the partners were of opposite sexes. While there were no issues of gender in Case 5 (Eda and Ali), Zeynep suggested that I should avoid pairing learners of opposite gender. When I asked why she thought like that and if any issues had arisen during their sessions, she said, referring to herself in the third person, "well, even if you restrain yourself, you might like the person, and the girl is also beautiful".

Possible reasons for the difference in the perception towards mixed gender DVC partners might include individual conversational styles of the participants (Case 1 included giggles and showing each other personal ornaments such as nail polish and necklaces, and talking about their emotional relationships); general cultural differences in their approaches to the opposite sex; and/or mere attraction which could have happened in any other context. Pedagogically, when pairing up DVC partners as an organiser of the

interactions, a consideration of gender in terms of cultural values and practices as well as personal preferences would be advisable.

Avoiding apprehension

Some participants suggested ways of decreasing the apprehension of the learners prior to DVC interactions such as encouraging learners to speak in FL (Nil) and arranging an initial session with the teacher to illustrate the tool and to ensure that there is nothing to worry about (Eda).

Number of interlocutors

Two participants also commented on having sessions in pairs rather than in groups, where individual differences were more pronounced. In the post-task questionnaire, Ali stated that he would like to get involved in discussion in this environment only if it was organized in pairs; he said it was (in general) very difficult to talk to more than one person online. On the contrary, Osman found it more relaxing to talk in a group than in pairs. He maintained that he feels compelled to take one turn after another in pairs, while the group allows him time and opportunity "to breathe, to construct his sentence structure mentally and choose appropriate words".

Use of DVC as a teacher

All participants said they would and/or could arrange an activity similar to the present study when they become practising teachers given that their students have sufficient linguistic levels and access to required technological resources. Participants also suggested that they could ask learners to reflect on their session recordings or arrange intercultural telecollaborations. Filiz was quite willing to pair her students even if only with other Turkish students because "in high school our teacher did something like that it was about letter we were writing to students from other cities and it was good because thans to them we were able to learn new words" (student's own English, post-task questionnaire).

Participation if arranged as part of the course

All participants expressed their willingness to participate in a similar study if it was conducted by their lecturer at the university as part of their course. There were two main stimuli for participation: (1) to get to know other people and make new friends; and (2) to improve linguistic skills. Osman also disclosed his curiosity about the activities and proficiency levels of students in similar departments in other universities. Eda, on the other hand, put forward her confidence in her linguistic ability and said she could help others improve linguistically while she herself could learn about their way of life and perspectives.

Preference about the native language of the partner

Native speaker (NS)

All participants said they would have liked to talk to a native speaker, particularly to get used to their accent, pronunciation and gestures and to improve their vocabulary knowledge, fluency and listening skills. Filiz and Eda also talked about the opportunity to learn about the target culture. Whilst some participants revealed limited self-confidence in interacting with native speakers, believing it would be difficult to speak and understand them (Nil, Ali and Emre), Hale and Eda were quite confident about themselves. Hale said that she was already interacting with native speakers online and Eda that she was confident of her FL skills.

Regarding native speakers, participants did not make special distinctions between varieties of English such as American, British, or world Englishes. Only two participants referred to British English, but this could be unconscious as they did not specifically suggest a distinction. In colloquial Turkish, 'English' is used to mean both 'British' and 'English'.

(post-task questionnaire)

Emre: ... because it is more effective to hear English words from an Englishman.

Eda: ... I would like to speak English like an Englishman.

Non-native speaker (NNS) – Turkish

All participants felt relaxed about having a Turkish partner, because they had similar language levels (Nil) and they could code-switch to express themselves better if necessary (Ali). Furthermore, Eda argued that they could understand each other by relying on their shared cultural background even when they could not express their ideas well. Eda also mentioned that she feels more uneasy (*tedirgin*) when talking to foreigners and always finds it more intimate and warmer talking to Turkish speakers. She said:

(post-task questionnaire)

Eda: We know our sense of humour and way of life, we've got shared values, we smile at same things, we cry and become upset about same things. For example, when you say Temel [the name of the leading character in many Turkish jokes] you could see a smile on Turkish people's faces but we don't know why English smile when they say Patrick.

Zeynep also added that she liked speaking to a Turkish partner because "there are not many Turkish people who are able to speak English" (post-task questionnaire). Osman's views were also interesting. While he felt quite relaxed and was not nervous at all, he regarded his relaxation as something almost negative because he was not content with the language he was receiving and producing. He expressed his joy at listening to a native speaker or his teacher because they 'inspired' him and stretched his own skills in an effort to produce better language. In Vygotskian terms, he preferred 'to be scaffolded' rather than 'scaffolding others'.

Non-native speaker (NNS) – not Turkish

Participants had different views on whether they would like to be partnered with a non-native speaker of English who is not and/or does not know Turkish. Zeynep, Nil, Defne and Ali reported that if they were to interact with a NNS, they would rather have a Turkish partner considering the flexibility to rely on Turkish when stuck with their linguistic skills in expressing themselves. On the other hand, the others were more positive about having other NNS interlocutors, namely Deniz ('to make friends'), Filiz ('surely will learn new things'), Hale ('to spot differences in accent'), Emre ('can communicate in English and learn another language'), Osman ('to learn their culture and perspective') and Eda ('might be more difficult to understand their accent but it is a different pleasure').

6.3 *Existing components of social presence*

The framework of social presence (SP) developed by Rourke et al. (1999), like the adapted framework of Swan (2003), consists of three categories: *affective, interactive and cohesive*. The framework and its subcategories were further explained in the literature review (section 2.4). The analysis in this section includes the themes that arose in relation to these existing categories. While I took the existing framework as the backbone for the analysis, new subcategories emerged and some existing sub-categories fitted more than one category. Moreover, I renamed the categories in a way which I believe represents the contents of the categories and the dynamic nature of SP in synchronous multimodal online contexts more clearly. I leave the previous category names in parenthesis for straightforward comparison.

6.3.1 *Building immediacy (affective)*

Building immediacy relates to the feelings of closeness, warmth, sincerity and intimacy.

Seven themes emerged in this category: smile, self-disclosure, humour, complimenting and expressing appreciation, familiarity, off-task talk and empathy. In addition to an

affective function, smiles also had implications for interactivity and intersubjectivity. Each of these themes are explained and exemplified in this section.

Smiles (Affective – Interactive - Cohesive)

Smiling was an important feature of the participants' conversations. It had mainly an affective function, but also interactive and cohesive functions.

For most participants (Defne, Hale, Zeynep, Emre, Osman, Deniz, and Eda) smiling indicated and projected warmth and immediacy in the interaction. For example, Filiz initially perceived her partner (Nil) as cold and serious because she did not smile a lot. Her impression changed in time as Nil started to smile more. "Seeing the other smile" was also perceived as crucial by participants to establish and increase intimacy and warmth in their interactions (Hale, Zeynep, Eda, and Osman). For example, Eda thought her partner, Ali, was very friendly and warm and, his facial expressions were quite animated; moving his eyebrows to indicate misunderstanding and smiling or nodding to indicate understanding. His use of DVC to its full potential eased meaning-negotiation and thus "reduced coldness".

Defne wrote in her final questionnaire that smiling made the conversation enjoyable. Sharing a similar view, Eda also wrote that it was the most important behaviour in her DVC interactions because it "motivates, courages, relaxes, stimulates the speaker, also gives confidence, enthusiasm, will to both the speaker and the listener to continue" (student's own English).

Some participants' smiling was strategic to better express their emotions (Emre, Filiz, Deniz), and to increase warmth and immediacy (Emre, Ali, Filiz, Osman). Ali was aware of the positive impact of his smile in his face-to-face interactions and continued to use it in the DVC context. Filiz said she smiled on purpose to demonstrate her fondness towards

her partner. Osman was also conscious of the influence of smiling on interaction and thus smiled more to prevent “coldness” even when he did not really feel it. Neither in his interview nor written comments did Emre (Osman’s partner) mention that he questioned the genuineness of Osman’s smiles and sincerity. On genuine and pretended sincerity, Defne said pretended sincerity, if obvious, would generate a “cold barrier” which would impede the relationship. On the other hand, for Eda it was enough if her interlocutor just “looks” sincere (interview), “He was sincere. ... I thought he was sincere, but maybe he was not, but even then that he looked sincere is a kind of sincerity for me”.

Regarding interactivity, smiles, as a form of backchannel, indicated understanding the content and involvement in the conversation (Hale, Osman, Eda, and Filiz). Participants considered the smile as an act of acknowledgement of and reaction to the previous turn. Nil and Defne thought smiles indicate openness to communicate. In Defne’s words, “a person who can laugh is I think a person who is open to communication”.

Smiling was also a cohesive device because it was reciprocal (Ali and Emre). When their partner smiled in sync with themselves, they felt that their behaviour was reflected and reciprocated by their partner. Ali said he would have “felt stupid” if his partner did not smile while he was smiling. Therefore, in terms of smile as a mutual act of understanding and acknowledgement, it is perhaps an important element, ‘being on the same wavelength’.

Self-disclosure

As an affective indicator of social presence in Rourke et al. (1999)’s framework, self-disclosure is defined as “details of life outside of class, or expression of vulnerability”.

While expression of emotions is coded as a separate indicator and its definition includes conventional and unconventional expressions of emotions, its coding is largely focused on the semiotic representation of emotions in written communication, that is, repetitious punctuation, capitalization and emoticons.

In the DVC context, it is not very easy to separate self-disclosure and expression of emotions, because emotions are frequently, but not necessarily, expressed nonverbally while disclosing vulnerabilities, expressing opinions or sharing an experience. Based on participants' comments, I find it useful to distinguish between two types of self-disclosure; (1) providing personal information, thoughts and opinions and (2) narrating emotionally loaded personal experiences and anecdotes. While the former is more informative (e.g. providing details of your family, describing your room, etc.), the latter is more emotional (e.g. narrating an event or an anecdote as experienced). I use degrees of informativeness or emotion to describe them because I acknowledge that providing information can involve expression of feelings and emotions and a personal experience can be narrated on a factual base distancing the self.

1. Providing personal information, thoughts, opinions

Most participants (Deniz, Nil, Ali, Osman, Defne, Hale, and Emre) felt their partners were immediate and close when they disclosed details of their personal lives. These included details of their family, personality, characteristics and romantic relationships. Filiz believed that sharing personal information allowed them to get to know one another more, hence, increased familiarity. Hale said she could tell more about her private life to the people she trusts. For Osman, sharing personal life details was also an indication of trust.

Especially Hale and Nil acknowledged that during their DVC sessions they disclosed more about their lives than they normally would have to new acquaintances in face-to-face settings, because they must have felt close and sincere. Likewise, feeling close was a requirement for Defne to disclose details of her daily life, otherwise, she said, she would have held "a more superficial conversation" and would not have provided much detail.

There might be a two-way relationship between self-disclosure and feeling close: while self-disclosure generates feelings of closeness, feeling closer might in turn encourage more self-disclosure.

In the context of new acquaintances, Deniz and Zeynep believed that people might hold back some information. Deniz thought people might avoid disclosing information especially which could be perceived as offensive, Zeynep argued that people would tend to disclose positive aspects of their life first and would delay disclosing negative aspects. After their first session, Ali wrote in his questionnaire that the communication was warm and intimate because they spoke to each other as if they had “known each other for years, talking about things that you would not say to the people you meet for the first time”.

For Ali, another requirement for self-disclosure was understanding. He said he would only open up and talk more about his personal life after he believed that his partner could understand him. Hence, intersubjectivity and empathy seem to be important elements that encourage self-disclosure.

2. Narrating personal experiences, emotions, anecdotes

In their final questionnaires, participants mentioned that expressing emotions ensured positive appraisal of the conversation (Defne, Hale), helped conversation become more enjoyable (Ali, Zeynep) and believable (Zeynep), and helped them feel more comfortable (Filiz).

Some participants (Nil, Defne, and Hale) mentioned the importance of the availability of audio-visual modalities in DVC in inferring their partners' feelings and emotions. They all asserted that in text-only online interactions they would question the sincerity of the emotions expressed verbally and via emoticons. Paralinguistic cues in DVC allowed them to figure out their partners' emotions and decide whether s/he was genuine.

Nil enjoyed the informal tasks which guided their DVC sessions. She asserted that emotions predominated when talking about their personality and character, and that talking about personality was also useful to get to know one another.

When asked to comment on the time they felt the closest, most immediate and warmest, seven participants (Deniz, Zeynep, Nil, Filiz, Defne, and Osman) recalled parts of their interaction involving narration of events and experiences which were emotionally engaging. For example, Deniz (Case 1) felt closest when Zeynep shared her emotions about her newly developing romantic relationship. Likewise, Zeynep (Case 1) also felt close when Deniz disclosed his emotions about and memories of his previous girlfriend. Nil and Filiz (Case 2), in addition to sharing information about their families, felt intimate when sharing their memories of their best friends, both of which involved 'crying with their best friends'. Likewise, Osman (Case 4) felt closest when he could empathise with Emre's feelings of being away from home for the first time. Defne (Case 3), on the other hand, felt closest when they could laugh at each other's room drawings, sharing their embarrassment about drawings which both thought were terrible. In these four cases personal distances decreased when the participants shared and could relate to their partners' experiences, feelings and emotions.

From a research point of view, there are four questions that arise about self-disclosure in this particular context. First, a language learning task is more likely to require sharing information about the self and life outside of class than tasks in other subject areas such as business or mathematics. More specifically, all four tasks in the current study asked participants to share information about their life outside the learning context such as families, personalities, a memory with their best friends. If all incidents of self-disclosure are to be counted with the same face-value, then tasks that require more self-disclosure would eventually have a bigger aggregate social presence density. Previous research on social presence considered it to be a quality of the medium. Contemporary research, however, considers social presence as a quality of the people and their interaction, hence as a mutually constructed quality. Furthermore, can social presence be a quality of the task? In other words, would some tasks encourage more social presence than others (e.g. via promoting more self-disclosure)?

Second, would required self-disclosure (by the task) and voluntary self-disclosure (supplementary information not required for the completion of the task) affect social presence at a similar level? Are all incidents of self-disclosure 'perceived' in the same way whether they are set by the task or they occur arbitrarily?

Third, can researchers objectively identify self-disclosure? For example, Filiz said she would share details of her family life with anyone. However, it was a delicate area for Nil who would only talk about it with her close friends. Nil, indeed, talked about her family and thus assumed there was not much personal distance between her and Filiz. On the other hand, for Filiz the distance was still there because she thought they did not share much detail about their private lives. Therefore, is self-disclosure subjective and dependent on individual perception?

Fourth, does the DVC context stimulate more self-disclosure? Nil and Hale, in particular, mentioned that they disclosed more during their DVC interactions than they would normally have done with new acquaintances. They were not sure why, but they assumed because they "must have felt close". Moreover, other participants expressed their uneasiness about silences in DVC and the meaninglessness of continuing the online interaction when they do not produce verbal discourse. Therefore, is it possible that participants talked more about themselves with an attempt to fill up the required time and space? It is important to note that participants were told the length of each session would be 30-45 minutes. Hence, while more self-disclosure could be due to intolerance of silence in the DVC context, it could also be due to time requirements (length of the session) defined by the task.

Humour

The use of humour made DVC conversations enjoyable (Defne, Hale, Eda, Zeynep), informal (Deniz, Osman) and intimate (Filiz, Ali, Emre). For example, Emre said, "It is

important to make jokes, it brings people together, you understand that you are more intimate. Non-humorous talk is boring anyway" (interview).

Filiz and Eda expressed the view that humour increased warmth. While Eda stated that humour "softens and warms up the conversation", she believed it was not crucial because some people might not like humorous interactions. Yet, for Deniz, humour was crucial in creating an informal context to establish new relationships. He believed that humorous banter between him and his partner "was influential in their friendship to develop on a sounder foundation". His partner Zeynep also commented positively about it and said they "had fun by adding silly bits in between".

For others laughing about their own mistakes was perceived positively; humour could also be an indication of linguistic proficiency. Ali and Osman both indicated in their interviews that they felt more confident about their language use once they could make jokes.

While humour is considered to have an affective function as part of social presence theory, other researchers have also pointed out a cohesive function. For instance, Eggins and Slade (1997, p. 183) argue that:

The construction of group cohesion frequently involves using conversational strategies such as humorous banter, teasing, and joking. These strategies allow differences between group members to be presented not as serious challenges to the consensus and similarity of the group.

Although Emre talked about humour as a device that brings people together, other participants' comments were more related to the affective function of humour. As data obtained in the current study was inadequate to argue for a strong cohesive function of humour, I leave humour in the category for building immediacy, but acknowledge and highlight its cohesive function to be explored in future research.

Complimenting and expressing appreciation

Based on teacher's praise of learner's work as an immediacy cue, Rourke et al. (1999) consider complimenting, acknowledging and expressing appreciation, which reinforce collaboration, as an interactive indicator of social presence. In online educational contexts where there is a 'facilitator', complimenting would be perceived as positive feedback (evaluation) on the work accomplished and would in turn motivate learners to further their studies. However, in learner-learner interaction, complimenting or praising work could imply a higher status among the interactants. Moreover, if not mutual, it can cause hostility where all learners are assumed to have equal status, if not otherwise established by the learning task, the teacher or the group members themselves. (Issues of power will be further discussed later on.)

When investigating complimenting or appreciation among same status learners, it might be useful to investigate when it happens and how it is phrased, that is, whether it is perceived as patronising or supportive. For example, Deniz perceived the way Zeynep complimented his FL use when he felt incapable as very supportive. While proficiency in FL seemed to be a topic of competition between them throughout their sessions, when Deniz expressed his vulnerability and unhappiness, Zeynep downplayed her confidence in her FL proficiency and praised Deniz that he was doing his best at such an early hour in the morning when they cannot even speak Turkish. Deniz felt valued and expressed the view that it was a very positive and warm attitude.

The participants in the current study did not generally perceive compliments as an important element of their interaction. While not attaching much importance to compliments, Osman, Ali, Emre and Defne expressed their belief that everyone would like to be complimented and feel proud. Eda wrote in her final questionnaire that compliments would not affect her 'thoughts or feelings' towards her partner, but would make her 'feel

better' for 'being appreciated'. Hence, some participants commented on compliments as a basic human need to be appreciated, approved and liked.

For example, Deniz focused on 'personal' compliments when asked if he and his partner complimented each other. It was important for him that his new acquaintance thought highly of him. Thus, he complimented his partner (Zeynep) saying she looked really nice, had a nice smile and so on. Zeynep also reported that she enjoyed his compliments in terms of 'ladies get compliments'. However, she was cautious when she thought the compliments were taking a flirtatious turn and she believed she acted to prevent misunderstandings by refusing the compliment rather than accepting it but perhaps her refusal was perceived as being polite or an invitation for more compliments. Hence, via compliments they were enacting their gender roles as well as learner roles.

Zeynep was much more positive about compliments in relation to her language, she argued that they 'calmed them down' and helped establish self-confidence. Deniz's comments on how well she was speaking encouraged Zeynep. Filiz had a similar feeling and said compliments on her use of language increased her willingness to talk more.

Not all compliments were perceived the same. For example, Defne distinguished between deserved and non-deserved compliments and reported in her final questionnaire that only the former would encourage her. Likewise, Nil was more reserved in the way she accepted and expressed compliments; she found verbal and direct compliments and expression of appreciation "somewhat artificial" and preferred indirect compliments.

It is perhaps best to categorise personal compliments, and language and/or task-related compliments differently. Personal compliments might be regarded as an instrument to increase liking, overall self-confidence and warmth; whereas language and/or task related compliments could be expressed to reduce anxiety, increase self confidence and

encourage task accomplishment. While personal compliments have a purely affective function, language and task related compliments may also provide encouragement to enhance interactivity.

Off-task talk

For Filiz, focusing only on the tasks assigned and lack of off-task talk implied personal distance between her and her partner (interview). She intentionally asked about school and lessons to initiate conversation not prescribed by the task. Only then did Filiz feel the distance decreased. Nevertheless, overall she believed they “did not open up a lot, were not free, did not ask each other many questions, and just focused on the study” (Filiz, interview).

Filiz also commented on the influence of the DVC environment. For her it was like “a television screen” where the talk was scripted like a screenplay. This was one of the reasons why she felt restricted and did not continue the conversation off-task. Also when the task requirements were fulfilled and they were both silent, Filiz thought there was no reason to keep the DVC session going. This indicates that while silences are more tolerated face-to-face when people can sit together silently, when a new topic is not initiated in DVC, participants might tend to end the conversation.

The perception of what is off-task talk and what is not is obscure in a language learning context, because what would be considered as off-task talk in other subject areas, such as sharing their personal experiences, ideas or preferences (further explored under self-disclosure), is usually the content of the language learning task. Moreover, what is off-task talk and the level required to improve immediacy can also be subjective. While Filiz said they did not talk off-task much and did not share personal details, Nil mentioned in her interview that she felt particularly close when they talked off-task, that is, “other than what

was required by the task", in particular about their families. Hence, while the content and amount of off-task talk was trivial for Filiz, it was sufficient for Nil.

Having the flexibility to talk off-task and not only carry out the task "like a robot" increased immediacy and warmth. For Eda, it meant that her partner was genuinely interested in talking to her. In a similar vein, for Defne off-task talk also meant that the interaction with her partner was not simply for participation in the study, but that they were genuinely interested and "could communicate on [their] own behalf" (interview). Off-task talk also implied a willingness to continue the interaction. Talking off-task was an indication that they "got used to" the conversation and it would carry on.

In terms of the topics of off-task talk, sharing personal stories was an obvious indication of immediacy for Defne and Nil. Although she could not clearly remember, Defne mentioned that she felt personally close to her partner when Hale told her about a memory she had of a friend. Nil also thought they were close and intimate when Filiz talked about the time she had to live away from her family. These personal anecdotes from their personal lives had a more socio-affective quality and were less informative. They were stories full of emotions which were also supported and enhanced by audio-visual expressiveness. Therefore, in terms of pedagogical implications for task design, tasks which require sharing personal anecdotes and experiences would have an increased potential to engage participants affectively, emotionally and socially.

For Hale, initiating off-task talk by asking questions (and being asked questions in return) allowed them to learn more about each other, prolong conversation, and fill up the remaining time. Hence, allowing plenty of time for the task and for off-task talk would allow distance learners to establish social presence. For pairs who wish to prolong interaction, but are unable to initiate new topics, setting an optional task or tasks could prevent awkward silences and relieve them of the social pressure created by such silences.

Emre considered phatics as off-task talk. When asked if they had talked about anything else than the tasks, he mentioned that they asked each other how their day had been and what they had done on the day. Intersubjectivity established at this stage (both had spring festivals at their university campuses and the same singers were giving concerts at different days in both campuses) led to more off-task talk bringing participants closer.

Emre also considered redundant details his partner provided during talk assigned by the task as off-task talk. For example, as part of the first task when they were talking about their families, he appreciated the way Osman did not “hold much information back” and talked about his parents’ occupation and even that they were immigrants from Bulgaria. For Emre, this was something he would not necessarily reveal as a task requirement. Hence, further details relating to self, not necessarily required by the task can also be perceived as off-task talk, which closely links to participants’ perspectives on self-disclosure.

Off-task talk can be planned into task design either directly (by specifically indicating that the learners are encouraged to talk off-task) or indirectly (by allowing plenty of completion time for open-ended tasks). However, in this as in all other facets of online interaction, there would be individual differences in how students react to the task, depending for instance on their attitude towards the learning context or on their conversational styles, so some flexibility should be built into task design.

Familiarity

For Defne, intimacy was about “acquiring information about the person, learning about his/her hobbies, phobias, interests, life style and where s/he lives” (interview). Intimacy seems to have increased over time (Defne, Hale), that is, increased with further opportunities to know the other via increased amount of online sessions. For example, Hale wrote in her post-task questionnaire after session 3, “I think each session is more

intimate than the previous, this session was also very good, I felt relaxed". On the other hand, Filiz felt unable to get very close with her partner (Nil) because three sessions were perhaps not enough to bridge the personal distance. Emre, Osman, Defne and Ali were other participants who believed the closeness and intimacy with their partners increased over time.

Therefore, increased interaction provided more opportunities for increased familiarity, thus clarifying ambiguities and reducing unpredictability which amplified relaxation and thus in turn facilitated feelings of closeness, warmth and intimacy.

Related to increased familiarity was increased trust. For instance, Defne wrote in her post-task questionnaire following the third session that she could trust her partner and that she got to know her partner more at each session. The amount of contact for participants to trust their online partner perhaps varied individually. For example, while Defne was able to say that she could trust her partner following their third encounter, Osman was more sceptical and wrote in his post-task questionnaire, "I find him more intimate as I learn his characteristics more but I can't trust him like a close friend, in the end we only met four times, half an hour each". Also perhaps there are levels of trust, as will be discussed in beliefs about online communication (section 6.4.2). Zeynep also required more time to trust her partner, because she believed that people would only present their positive aspects at initial contact and would only open up their negative sides after the relationship advances.

Participants were generally happy to meet unfamiliar peers from another university and they felt it was nice (e.g. Defne), exciting (e.g. Emre) and fun (e.g. Deniz). However, some (e.g. Zeynep and Hale) were critical about familiarity and argued that it was restricted by its enactment by the other in the social context. For example, Zeynep believed she could only know others to the extent that they wish to disclose. Similarly, four online sessions

were insufficient for Hale, when “[she] cannot even know the people [she] is friends with for years”.

Participants evaluated tasks positively in terms of the affordances they manifest to increase familiarity. First, acquiring information about their partners' personality, horoscope, room, and music taste allowed them to know each other better (Ali, interview) and “form impressions about their personalities” (Eda, interview). Second, the tasks were flexible enough to extend the conversation to other topics of interest which then enhanced level of familiarity (Hale, interview).

In addition to the content of the tasks, visual representation of their partner via the webcam generated personal impressions. For example, Eda (interview) said she could understand “what kind of a person” her partner is based on his smile and gaze. Ali, on the other hand, thought the video image was 90% influential in his impressions about his partner and assumed he would have an imaginary person in his mind if their interactions were only written.

Finally, Hale also mentioned the necessity to adjust level of jokes and banter according to the level of familiarity because “untimely” and “out of place” jokes could offend the other.

Empathy

Deniz and Defne appreciated the way their partners empathised with them when they had problems with their language. As she reported in her interview, there were a couple of times when Defne was unable to understand her partner's pronunciation and asked her to repeat things several times. Defne felt encouraged and relieved as Hale showed understanding and repeated as necessary without getting annoyed.

As previously explored under complimenting and expressing appreciation, Deniz welcomed his partner's, Zeynep's, support and encouragement when he revealed his unhappiness with his language production. Zeynep directly related to him by mentioning the difficulty of speaking even in Turkish, let alone in English at such an early hour. She also used the inclusive pronoun 'we' in these remarks which further implied her empathy, that is, it was difficult for her to produce FL, too.

In terms of linguistic empathy, Ali emphasised both his and his partner's tolerance of ambiguity when they could not understand each other due to insufficient vocabulary knowledge or technical audio problems. For Ali, it was inappropriate to ask his partner to repeat each time he could not understand; so he simply continued the conversation from whatever he could hear to avoid uneasiness for his partner. Ali also said that when he watched the recordings, he noticed their irrelevant turns which implied that his partner (Eda) did the same. For Ali, the acceptance of potential FL mistakes and of inadequate expression of the self was an important indicator of empathy.

An understanding of linguistic problems and a tolerance for mistakes is a marked feature of most NNS-NNS (non-native speaker) interactions. In NS-NNS interactions, if the NS provides excessive error correction and fails to tolerate and compensate for incomprehensible speech, the NNS might lose confidence and the interaction might terminate. Empathy for linguistic difficulties would make allowances for positive pauses and silences as exemplified in Case 5 (section 5.5). These silences provide time for language construction and facilitate reflection which benefits learning. Lack of silences and an abundance of interruptions (as in Case 1 and Case 4), may cause an unequal (voluntary or imposed) distribution of power between the interlocutors or result in a continuous struggle for alignment of dominance and submission.

Empathy was also closely related to intersubjectivity (section 6.3.3). For Emre and Ali, ability to understand each other was crucial for establishing immediacy. They stated that people disclose more when they feel they are understood, which then reinforces establishment of immediacy. Also having similar life experiences allowed some participants to relate to and understand each other more easily (Hale, Zeynep, Osman), such as being away from home, romantic relationships and relationships with siblings.

6.3.2 Sustaining interaction (*interactive*)

In this section I present seven themes that emerged in relation to interactivity. These are: questions, backchannels, reciprocation, attending, chronemics, collaboration, and turn length and silence. But first, I summarise participants' general strategies to maintain a smooth flow within the interaction.

- Asking questions, both follow-up questions to further the current topic and questions that probe new topics (Hale, Defne, Eda, Zeynep, Filiz, Deniz, Emre)
- Initiating a topic of mutual interest (Hale, Zeynep, Osman)

(interview)

Osman: I'd talk about his interests, it'd be such that the other would talk, but not get bored, will enjoy talking and you should indicate that you're enjoying listening so that s/he would continue. The other could talk and talk for a while, and when s/he realises that you're not enjoying, the s/he would say okay let's change the subject. That shouldn't happen. Interests are important.

- Establishing intersubjectivity and encouraging partners to talk more by initiating new topics (Ali)
- Smiling to encourage "both the speaker and the listener to continue" (Eda)

- Backchannels and language-related compliments which encourage the interlocutor to continue talking (Filiz)
- Off-task talk: talking about daily life when the task is complete (Nil, Defne, Hale)
- Simplifying sentences and grammar when needed (Defne) and tolerance for failure to negotiate meaning (Defne, Ali)

Questions

Questions were predominantly perceived as significant indicators of a willingness to prolong contact and an invitation to continue the conversation. When her partner asked her questions, Eda felt important and comfortable because, as she wrote in her final questionnaire, "I know that s/he wants to hear more from me and tries to make me talk by encouraging, and viceverse" (student's own English). Asking questions was very important to extend interaction time (Defne). As an invitation to talk more, Filiz reported (final questionnaire) that they encouraged each other by asking questions, which made them feel "happy" and that questions allowed them to have "prolonged" interaction. Follow-up questions or even short turns with empathic expressions were sufficient for Defne to feel encouraged to talk more. When asked how Hale encouraged her, she made the following comment:

(interview)

Defne: She asked questions, for example, when I said I have a guitar, she asked 'do you know how to play', when I said I compose music, she said 'really?!', even that kind of questions were enough.

Questions, and in particular questions which are not task-related, might also indicate a willingness to continue the conversation. In their second DVC session, Filiz and Nil completed the requirements of the task within the first 20 minutes and then started to talk about their life at school in the remaining time. Filiz initiated this second half of the

interaction and she said in her interview, “I didn’t want the conversation to end that soon, and I thought Nil wanted to finish, so I started asking questions about school”. This was interpreted correctly by Nil, as she said in her interview, “She suddenly turned to daily life by asking like ‘how is school’, ‘have your finals started’ and so on. She wanted to continue more and I enjoyed it”. Hale also used this strategy of asking off-task questions about their personal lives as a way to fill up the remaining time after they completed the task.

Off-task questions perhaps also imply a genuine interest in the interlocutor. For Eda, questions that implied her partner was interested meant he was being intimate. When her partner asked Eda off-task questions, she felt that he was asking “not simply as a task requirement, but because he wanted to learn something about [her]”.

Eda also believed that asking opinions on a topic “makes the person disclose herself/himself or relax” (final questionnaire). Filiz thought the same and mentioned in her interview that questions “open up the person” and make the person go into more detail.

For Zeynep, questions were an aid to ensure the flow of the conversation, especially when they felt stuck. Emre also mentioned that they became close very quickly because, when they were at a loss for words, they helped each other continue by asking questions. By asking and answering questions participants felt they were *both active and involved* (Nil, Eda); and that their point of view was understood and acknowledged (Hale, Emre, Ali).

By asking her partner to repeat, Eda tried to “prevent misunderstandings”. Likewise, avoiding misunderstandings by asking was important for Zeynep, because she wanted to make sure her teasing and banter were not perceived negatively. For Filiz, she had to frequently ask her partner to repeat to clarify inaudible turns caused by audio delay.

Commenting on the extract from the pilot interaction, Filiz did not think Aylin and Birsen were very intimate and/or sincere (*samimi*), because Aylin, in particular, did not

reciprocate the questions; she closed the conversation down after providing her reply. She said Nil and herself both asked each other 'How about you?' when each finished talking on a topic. This ensured both had an equal opportunity to talk and share experiences.

Being able to ask questions was perhaps an issue of status for Deniz. In his interview, he frankly expressed his unhappiness at his failure to ask questions to his partner. He said when he was talking, Zeynep frequently asked him questions, but when it was her turn to speak, he could not ask any. He later on suggested that this was due to trying to interact in English as it took him longer to construct what he wanted to say in English. He felt slow as trying to translate from Turkish interrupted the flow.

Therefore, asking questions either to start a new topic or to follow-up on the existing topic could be regarded as a very important interactive indicator of social presence. Based on the participants' comments above, the following could be argued:

- Questions indicate a willingness to continue the conversation and prolong contact.
- Questions aid conversational flow and prevent discontinuity.
- Questions ensure involvement and indicate understanding and acknowledgement.
- Off-task questions are useful to continue the interaction when session time remains upon completion of the task.
- Off-task questions indicate a genuine interest in the speaker and thus increase intimacy and immediacy.
- Follow-up questions on a topic encourage the speaker to talk more, self-disclose more and provide more details.
- Clarification questions prevent misunderstandings especially due to teasing and banter or audio delay.
- Reciprocating questions (such as 'And you?', 'How about you?' etc.) increase intimacy, provide equal opportunities to talk and ensure equal status between the interlocutors.

Backchannels

A distinguishing feature of synchronous computer mediated communication (SCMC) is the availability of backchannels. By providing immediate feedback, backchannels reinforce the maintenance of the interaction. For example, Filiz perceived nonverbal backchannels as approval and acknowledgement of her turn and thus encouragement to continue in a similar manner.

Backchannels were also seen as an important indicator of involvement. For Nil and Osman backchannels, such as head nods, facial expressions, smiles, raising an eyebrow or other nonverbal reactions, indicate that the other is listening and paying attention. Defne and Ali further suggested that appropriate and prompt reactions from their partners indicated that they were fully involved in communication. For Ali, it was very important for interlocutors to observe each other's backchannels to ensure that the other was not bored and was still involved in interaction.

Moreover, backchannels facilitate meaning negotiation online. While for Zeynep and Nil, facial expressions such as smiles indicated that their partner could understand them, Eda depended on her partner's facial expressions to understand her partner's message when she could not clearly hear his verbal message.

In terms of turn-taking practices, backchannels in DVC did not seem to be as effective as they would be in face-to-face interactions. In his interview, Emre complained about the delayed (near synchronous) visual cues for turn-taking in DVC. While Emre was able to interpret when the other wanted to take the floor in his face-to-face interactions, he was unable to use these cues online. He was dissatisfied about the disruption of interaction when both waited for the other to take the turn.

Eda, on the other hand, commented on her partner's backchannels from an affective perspective. She found her partner warm and friendly because "he was not just talking and looking, but he was also laughing, raising his eyebrows like when he didn't understand, and was like nodding his head". Therefore, it might be assumed that animated interlocutors who provide ample nonverbal backchannels are perceived as warmer, friendlier and thus more immediate and intimate.

Reciprocation

Reciprocating their partners' initiatives emerged to be a necessary element for mutual involvement in and satisfaction from the conversation. Reciprocating humour, questions and amount of information incorporated in the talk was positively perceived. Some participants also mentioned the way feelings and attitudes were reciprocated within the unique context of their interaction.

Deniz stressed how Zeynep reciprocated his humorous banter and teasing. He believed this helped their friendship grow on a sound foundation. When commenting on the video extract from the pilot study he pointed out a lack of reciprocation by Birsen to Aylin's self-disclosure of "I like you". For Deniz, Birsen's warm smile was a form of reaction, but he would have expected some self-disclosure from Birsen too in return (Birsen's reply was simply "Thank you".).

For Zeynep reciprocal question-answer sequences allowed them to interact mutually. Such reciprocal interaction generated a feeling of "togetherness" and "involvement" for Defne. Filiz also reported that to ensure both herself and her partner were involved in the conversation they took turns in carrying out each step of the task.

However, Filiz was dissatisfied about the amount of information her partner (Nil) provided about her hometown. Filiz took the first turn to talk about her hometown and she showed

pictures, talked about the places in detail. She expected the same from her partner and even more as Nil's hometown was a big historical city and she could have more to talk about "historically and culturally". Filiz said she was "disappointed" due to Nil's lack of reciprocation. Still, she positively perceived the way Nil returned her turns with a "how about you?" sequence, allowing Filiz to incorporate her views and experiences on the topics.

Similarly, Osman expected his partner to reciprocate the amount of information he incorporated. For example, when planning a visit together, he said he would have preferred to decide on the plan in turns. While their interaction flowed more in terms of Osman's suggestions and Emre's acceptance; Osman said he expected further suggestions from Emre in response to his own.

While reciprocal interaction suggests active participation as illustrated above, there was also non-interactive mirroring between the interlocutors. Some participants (Eda, Ali and Nil) felt they mirrored their partner's feelings of relaxation and attitude. They felt more relaxed and closer as they perceived their partners as relaxed and close. For instance, Eda said, "When I saw him relaxed, I am inevitably influenced by the other. For example, if I noticed he was a bit worried or like serious ... I noticed, I saw, he was relaxed, then I thought there is no need to worry".

Listening and paying attention

Short et al. (1976) identify "evidence that the other is attending" as a critical feature in the promotion of socially meaningful interaction. *Feeling that the other is listening and thus, is involved in interaction is perhaps a prominent indication of attention.* It was important for participants to feel that their online partners were listening to, were paying attention to and were involved in communication, as would be expected in face-to-face interactions. Feeling that they were being listened to meant that their partners "cared about [them]"

(Deniz), "cared about what [they] said" (Filiz), "showed consideration" (Eda) and "did not want to be disengaged" (Defne). Moreover, Emre expressed the view that he felt involved in the interaction when his partner was listening and providing appropriate responses.

(post-task questionnaire following session 1)

Emre: I felt involved in the communication because I received good replies to the questions I asked. My friend listened to me well.

Participants identified several indicators which implied that their partner was listening or paying attention to their DVC interactions. I analyse these indicators under two groups: 1) intertextuality (referring back to a previous incidence in the interaction) and 2) nonverbal backchannels.

In terms of intertextuality, referring back to what was previously said via questions, comments or humour was perceived as a clear indication of listening. For example, commenting on the extract from the pilot study, Hale thought the participants were listening to each other because they were asking questions, participating in the talk with relevant expressions, adding to what the other said and smiling at each other. Likewise, Nil thought Filiz listened to her during their interaction because Filiz offered her own comments and views on the topic when she completed her turn.

In addition to comments and asking questions, humour evoked by previous talk implied listening. On many occasions Eda mentioned that their interaction was fun and they laughed a lot especially about their mistakes or by referring back to their previous turns. In her final questionnaire, commenting on the importance of 'quoting from other's messages' she wrote, "just a good way to have a sincere and a humorous atmosphere, I think I said humorous, coz, during our conversations, we just quoted our deficiencies, negative sides

and laughed a lot ☺ also it can show how you have been listened by your partner”

(student's own English).

Moreover, Emre and Osman commented on indicators of ‘not listening’. Emre believed that failure to ask further questions on what was said suggested that the partner was ‘not listening’. Likewise, Osman mentioned in his interview that on occasions such as when the interaction focuses back on what was previously talked about, if his partner acts as if it is the first time s/he hears it, this would imply that his partner was not listening earlier.

Nonverbal reactions, that is, backchannels, were the other indicator of paying attention. These include smiles (Hale, Osman), head nods (Nil, Filiz, and Osman) and other nonverbal reactions (Nil) such as facial expressions, expressions of acknowledgement or surprise and raising an eyebrow (Osman).

(interview)

Osman:... from his head nods, confirmations or surprise, facial expressions, raising his eye-brow, his smile; for example, I say something interesting or funny and he smiles, you can understand that he is listening from these, that he is paying attention and showing respect.

Filiz and Defne also felt their partner was listening and was interested when their partner looked at the same direction, that is, the screen and thus ‘themselves’, perhaps in a way replacing gaze or eye-contact which has the same function in face-to-face interactions. For example, Defne said in her interview that feeling her partner was looking at her meant her partner “was listening, did not want to break from the interaction, which in turn meant [she] was important for [her] partner”. She, herself, in an attempt to indicate to her partner that she was listening, kept her eyes on the computer or her posture towards the computer even when her gaze moved around while talking.

Filiz compared DVC with her text-only online interactions. In the latter, delays in response time could result in doubt as to whether her partner was paying attention, while in DVC she could 'see' whether her partner was listening or not. Filiz suggested that there was continuous acknowledgement of turns in DVC, which constantly reminded her that both were involved in interaction.

(interview)

Filiz: ...for example, you write and the person starts writing after a couple of minutes later. Then you think whether s/he did not take notice, whether s/he did not really care ... but in videoconference you really see that s/he is listening, and s/he continuously provides confirmations in some way, and that is why you are constantly in interaction.

Defne and Ali did not necessarily differentiate between verbal and nonverbal backchannels, but rather perceived them all as a type of 'reaction'. While for Defne 'any reaction, even very small' indicated listening, Ali believed harmonious and prompt reactions were particularly important. Commenting on the pilot extract he assumed the participants were listening to each other because their reactions were not delayed, but were in tune. It is worthwhile to note here that while interactional synchrony is generally smooth in face-to-face interactions, in DVC it could be a challenge due to video and audio delays or connection problems. Therefore, an awareness of potential issues of interactional synchrony and perhaps a tolerance of asynchrony is crucial for a smooth flow of the interaction and thus the relationship. Moreover, Ali suggested that even if the interlocutors in the pilot extract were in fact not listening to each other, it was not observable. For Ali, as long as the interlocutors felt they were gaining attention, their intended or actual behaviours were not important.

Collaboration

Participants mentioned several instances when they needed to collaborate in order to help each other. First of all they had to find a way to initiate and maintain the conversation.

They were unfamiliar with each other, without a shared background. On top of the expected awkward silences which could occur between new acquaintances in face-to-face interaction, lack of physical embodiment and space online also made it difficult to ensure flow. Thus, participants (Filiz, Zeynep, Hale, and Emre) stated that they encouraged each other when the conversation was stuck, especially by asking each other questions (as discussed under questions).

The tasks were carried out in the target language (i.e. English) and participants sometimes struggled linguistically. They were mostly very sympathetic and provided linguistic help when required (Zeynep, Defne, Hale, Nil, Eda, Emre). Zeynep also appreciated her partner's help and collaboration using IT software and equipment, which was quite frustrating for her.

Filiz and Nil felt they completed the task collaboratively. Filiz said Nil was willing to help and participate when she did her best to find a picture to show her when Filiz asked for it. For Nil, Filiz was sensitive and helpful when she misunderstood the instructions and had not prepared one section of the task. Eda and Emre were the other participants who emphasized collaboration in performing the tasks. In her post-task questionnaire after session four, Eda reported that online conversations "always" helped her develop a sense of collaboration because they made decisions together and she was aware that they were "participants" in the same task. For Emre, task planning helped him feel that they were collaborating when they checked if they were ready before they started, mutually decided on what to do next and monitored whether there was anything either of them wanted to contribute or ask at various points throughout the task.

Hale especially felt they were doing something in collaboration when they were drawing a room together on the online interactive whiteboard. While she considered the conversation itself collaborative, she did not think it was 'live'. She said, "For example, we drew our room together, this is collaboration ... the interaction is collaborative, I mean even if it was not live (*canlı olmasa da*), we did things together there". Perhaps, the act of drawing together was perceived as a more tangible collaborative act than producing online discourse together.

Chronomics

Time or chronomics as a nonverbal indicator (Andersen, 2008), was a theme that came up frequently in participants' comments in three aspects: increased familiarity via increasing amount of contact; response time in each turn; and limited, extended or flexible amount of time in each session.

There was general consensus that as the number of online sessions, hence the amount of contact, increased, partners had more opportunities to get to know each other better. Most of the time increased familiarity meant increased feelings of closeness and intimacy, increased trust and easier communication following relaxation. These ideas were further developed under the theme familiarity as part of building immediacy.

In terms of response time, while Defne and Ali felt quick reactions via backchannels implied being 'involved', Hale and Filiz commented on the response time in text-based online interactions where delayed responses might indicate an unwillingness to sustain the interaction. Particularly in that, they valued the synchronicity of DVC interactions which allowed them to feel engaged.

Time allocated for each session was the third issue related to chronomics. Defne found the time set for the organised online sessions to be a limitation on how well she could

know her partner. She thought she could share and learn more in her face-to-face interactions "without a limited time" for interaction. Filiz also felt limited by the session time; she sensed that the interaction was "only a task to be completed for the study and would end when the study ends" (interview).

While Filiz and Nil did not go off-task a lot and ended the session within the suggested time, Eda and Ali were more relaxed and flexible about time with the last session going on for about an hour and a half. Eda perceived this very positively feeling that they continued the conversation because they were enjoying it, and not that it was a study requirement. On this, she wrote the following in her post-task questionnaire after the fourth session:

(post-task questionnaire after session 4)

Eda: I think we fulfilled the task but we did not do it because it was a set task, but because we enjoyed it. I mean it wasn't like 'come on 45 minutes are over, let's hang up, let's finish' 😊

In a similar vein, Emre believed people would spend more time online with the people they value, which they would also indicate by their behaviour, the way they talk and their informal and relaxed attitude. Hale also mentioned that she felt important, because Defne "talked to her for half an hour, trying to tell about and express herself".

Although participants' views quite clearly indicated a preference for flexible session slots, this could be an issue in intercultural collaborations. In the Turkish culture, extended session times were perceived positively by the participants of the current study. However, from a stereotypical Western perspective, going over the planned time could have been perceived as irresponsible or even rude.

Turn length and silence

Some participants commented on the influence of the amount and pace of talk as well as silences. In terms of turn length, Defne, Hale and Ali said short replies frequently meant an unwillingness to communicate. It was an indication of submissiveness for Emre, because he interpreted Osman's talkativeness as dominance. Hale pointed to the influence of technological issues on the amount of talk produced. When commenting on the interaction between the pilot study participants she believed Birsen could not talk much due to the irritating echo on her speech, which Hale experienced herself.

Four participants commented on silences in their DVC interactions. Deniz, Zeynep, Osman and Filiz expressed their uneasiness with silences. For example, Deniz said they both encouraged each other to speak, because he found it unacceptable to be silent (*"sussan olmaz"*). Filiz also felt it was pointless to wait in silence for the time to be up and said they ended the session when they both could not find anything else to talk about. An intolerance of silence was observed in the interactions of Deniz and Zeynep (Case 1) and of Osman and Emre's (Case 4), with quicker turns and sometimes overlaps. Filiz and Nil (Case 2) were more tolerant of silences in terms of the pace of their conversation. Once the task was over, in order to allow enough time to initiate new topics, they accommodated long silences about five seconds long. Likewise, the interaction between Eda and Ali (Case 5) contained many pauses and slower turns which allowed them plenty of time to think about and reflect on their language use.

6.3.3 Establishing intersubjectivity (cohesive)

Intersubjectivity (common ground) was one of the main requirements for participants to feel sincere, close and warm. Aspects of intersubjectivity perceived to increase immediacy included:

- shared interests (Defne, Ali)

- shared nationality and culture (Eda, post-task 4): "When talking to a foreigner, you could be more nervous, formal. However, when talking to a Turkish person, whatever the topic is we could find a more intimate and warm atmosphere".
- shared native language and being able to use it in phatics and salutations (Emre)
- shared and/or similar conversational style in terms of addressing each other, interaction patterns, and similarities in ideas (Ali)
- shared identities in terms of age, education and aspirations (Osman, post-task 1: "We were quite close. The main reason was, I guess, because we were studying the same discipline and had earned our university place by similar perseverance and hard work").
- shared experience (Osman, interview: "He talked about the dormitory, as his first year away from his family, I experienced it four years ago, even five, I felt more intimate as an emotion I knew. I thought I understood him best then").
- shared humour (Ali, Emre) (Emre, interview: "Turkish people use more banter, which allows you to warm up, but if we had used English, we wouldn't have been able to get this close").

There was individual variation in participants' perception of what specifically helped establish intersubjectivity. Most mentioned what they perceived as creating a shared background, while some talked about an intentional and strategic emphasis on certain features in order to create a warmer and closer interaction. I categorise six themes for establishing intersubjectivity; common ground, agreements and disagreements, vocatives, inclusive pronouns, phatics and salutations, and power, which I now explore in turn.

Common ground

Participants appreciated having common ground for various reasons: As mentioned earlier, they believed shared interests and humour increased immediacy and warmth between themselves and their partner. For example, Defne reported in her post-task

questionnaire following the third session that she felt the interaction was warm and immediate, because they were able to laugh at and be surprised about the same things. This brought a sense of togetherness and unity. Ali also felt that having common ground would allow him to maintain a very close relationship. Likewise, Osman noted the main reason why he felt they were close was the fact that they were pursuing the same degree and been through similar struggles to get a good score at the university entrance examination.

Another function of intersubjectivity identified by participants was to attract their partner's attention as well as to arouse and sustain interest in the topic, and thus in the interaction. Pointing out the common was a device to draw attention to the topic for Ali. Furthermore, for Osman, it was the only way to identify himself with the other and to establish a connection.

For Emre, sharing similar experiences, interests and background with his partner increased their familiarity, allowed them to become friends more quickly and get on better. Intersubjectivity also creates topics for conversation because it provides "something to talk about".

(interview)

Emre: Our experiences are the same because we are in the same university discipline, and they also had spring festival there ... We talked about that, then football, a common point for guys. ... He supports Fenerbahçe, I support Fenerbahçe too, so we can get on well, we can have something to talk about.

For others, intersubjectivity was important to maintain a "stronger connection" (Deniz, interview); to maintain contact (Nil, interview); and to enjoy the conversation more (Osman, interview). In terms of meaning making, Zeynep, Hale and Eda mentioned that

they felt more at ease to express their ideas and interests to their partners because they shared similar experiences, characteristics, and interests.

Agreements and disagreements

"Expressing agreements" (Rourke et al. 1999) and "agreements/disagreements" (Swan et al. 2001) have been categorised as part of interactive indicators. However, in the current context, agreements and disagreements are seen as a tool that brings forth either similarities or differences between partners rather than tools that acknowledge or encourage interaction. Hence, I believe it is more suitable to categorise agreements/disagreements under intersubjectivity (cohesive). While agreements create common ground for partners and allow them to relate to each other, disagreements indicate a different point of view, which could be either positively (enrichment) or negatively (obstacle for social relations as it means absence of common ground) interpreted. The participants' comments were as follows.

On the influence of agreeing with their partners, agreements indicated and pronounced "similarities" (Filiz); implied that it would be "easier" to share things with their partner (Zeynep); "help understand" their partner (Emre); and ensure continuation of the interaction as they help "meet at mutual ground" (Nil).

Zeynep and Nil were not open to disagreements in their social relations in general. They expressed a preference for continuing their personal relationships with people with whom they agree on most issues. Moreover, Nil said she would hesitate to disagree with her partner in her DVC interactions with language learning partners because she "would not be able to predict how [her] partner would react". Hence, in such interactions she said she could see the interaction as a task and perhaps agree when in fact she did not. For Nil, agreements were important for friendship.

In contrast, Filiz specifically preferred disagreements. For her, disagreements were opportunities “to learn and improve [herself] more” as they provide various point of views of others. For others, disagreements were not a problem as long as they were done in a nice way and with respect (Defne, Hale, Ali, Eda, and Osman). Deniz and Ali also stressed that trust and a relaxed atmosphere were required for free expression of one’s ideas and beliefs.

Vocatives

Rourke, et al. (1999), state that “vocatives, i.e. addressing participants by name”, are an important cohesive indicator of social presence. However, this was also an indicator which generated few comments from the participants. While some believed it was very important for their partner to use their names because it would indicate care, interest and attention; others thought it would not matter. Some also preferred using nicknames or generic expressions such as ‘my friend’ as alternatives.

The participants who stated that it was important for them to be addressed by their name were Deniz, Filiz, Hale, Osman and Ali. They all stated that especially with new acquaintances, vocatives imply paying attention and attaching importance and value on the basic assumption that ‘at least s/he remembers my name’. Filiz, in particular, mentioned the way she addressed her partner Nil with ‘my friend’ in the first session (because they “use it in the class a lot and perhaps [she] got used to it”) and how she made sure she addressed her by her name afterwards. Deniz, on the other hand, referred to how “different” and “important” he felt when an unfamiliar tutor addressed him by his name and stressed the influence of vocatives especially in new encounters. Hale also believed in the importance of vocatives. Moreover, on the use of nicknames, she stated in her final questionnaire that they did not know each others’ nicknames, but if they did, using them would have helped them become closer.

The rest of the participants mentioned that they would not be bothered about the use of vocatives at all. Nil said she did not pay much attention to the use of vocatives and the content of her partner's messages were more important for her than how she addressed her. Zeynep, Emre and Eda did not mind whether they were addressed by their names or not. While Zeynep and Emre were also open to being addressed by nicknames or other generic expressions for addressing, Eda mentioned that she would not like to be addressed by a nickname by "people who don't know [her] very well". Defne emphasised that the use of vocatives and the choice of the type of the vocative were individual choices and that the level of intimacy intended would vary among people. She was content with her partner's addressing her by her name based on the level of their familiarity and closeness. In addition, another point Defne made was that, "strangely", in online written communications she would perceive her partner as angry or annoyed when addressed by her name (Defne, interview).

Therefore, participants' perceptions of vocatives varied both in terms of the use of vocatives and the type of vocative used. This could be due to the nature of the interactions, technical difficulties, cultural practices and educational background of the participants.

First, participants carried out the conversations in pairs, and thus one of the main functions of vocatives, that is, addressing people to allocate the next turn (Eggins & Slade, 1997), was largely not applicable. It was also not necessary to use vocatives when referring to previous talk in the interaction because there was only one other person to refer to. In this case using the vocative instead of "you" might be awkward and might sound like referring to a third person.

Second, vocatives were sometimes used for turn-taking purposes. Especially in Case 1, Zeynep usually used her partner's name repeatedly to interrupt his speech and take the

turn. It was less common among other pairs. It is relevant to note that Zeynep and Deniz experienced audio delay and Zeynep was generally unsure if her voice was transmitted clearly. This could be a plausible reason why she would repeatedly address Deniz as one might in a crowded place to attract attention when audibility is low.

Third, perhaps again cultural communication practices were influential in participants' perspectives on the use of names. As an insider into the Turkish culture, based on my personal observations, nicknames and phrases for addressing people such as 'my dear' are generally more common than using given names in interpersonal relationships. They indicate the level of immediacy and closeness between the interactants. Also among the members of the immediate and extended family, it is common to address them with words indicating the relationship (such as sister or uncle) than their names. While in formal contexts the name is followed by a gendered title (e.g. *Osman Bey* or *Zeynep Hanım*), in informal contexts, a suffix which indicates warmth is usually added at the end of the name (e.g. *Osmancığım* or *Zeynepçiğim*). If these are missing, when the use of the name is preferred rather than a nickname or the generic 'my dear' and the like, this might mean anger, danger, or seeking for attention especially when accompanied by relevant tone and pitch of voice.

Fourth, regarding the participants' roles as trainee teachers, they are perhaps more aware of the teacher immediacy cues (which is a topic in the curriculum of the Introduction to Educational Psychology course for the first year teacher trainees) and the impact of calling a student by name in the classroom.

Inclusive pronouns

When Rourke et al. (1999) developed the social presence framework, they maintained that inclusive pronouns as a variation of vocatives at the group level "connotes feelings of closeness and association" among the group. As the interactions in the current study were

in pairs, it was natural that not many comments were obtained from the participants. Participants' comments included the feeling of togetherness with the use of inclusive pronouns and the influence of the task on the use of pronouns.

Deniz and Filiz stated that when they used 'we', it increased their feeling of "doing something together". In the interview Deniz said, "We said let's do it, let's start, even the use of the plural was enough for me to feel that we were doing it together".

Hale's and Zeynep's comments, on the other hand, indicated that their use of pronouns was determined by the task. Hale stated that they used 'we' when they were drawing a room online together and Zeynep referred to the task in their third session when they were planning a trip to their hometowns together. Zeynep said otherwise they were mainly using "I" rather than "we" because they were talking about themselves.

Phatics and Salutations

Phatics are conventional expressions with little or no informational content which serve to confirm shared social ties, and include queries about health or comments on the weather. Phatics and salutations are considered as a cohesive indicator by Rourke et al. (1999). Three participants commented about phatics and salutations. For Zeynep, they indicated being pleased with the interaction. Osman believed phatics and salutations facilitated drawing his partner's attention to himself and arouse interest. For Emre, phatics and salutations especially in the native language helped create warmth and immediacy.

It was interesting not to receive many comments about the use of phatics and salutations.

This was perhaps due to the synchronous nature of the interaction. With the availability of rapid feedback a quick exchange of greetings or chat on weather seem almost natural.

Participants also perhaps easily transferred their face-to-face communication skills and habits into the DVC set-up. In this respect, culture might have an important role to play;

phatics and salutations are quite an essential part of even formal interactions as an opener.

Power

Although perhaps not directly analysed as a social presence indicator, the level of power and distance together determine the level of solidarity according to Scollon and Scollon (cited in Kinginger, 2000, pp. 24-25). Solidarity is accepted as a system in which "participants see themselves in some ways as socially equal and close". While in a learning environment with the presence of a tutor and/or teacher, a hierarchical system could define optimal social presence with the teacher having perhaps socially more power, but still close to the learners (as in teacher immediacy research); in learner-learner interactions such as the current context, if not approved by all participants one learner holding more power may be perceived negatively. I acknowledge that many other aspects of power have been identified, especially in social and gender studies. In a European language learning context, power and solidarity are linked with the use of formal or informal pronouns, such as *tu/vous* in French, *tú/usted* in Spanish or *sen/siz* in Turkish. I limit my analysis here to the use as it emerged from the data in the particular context, that is, how participants perceived social equality in terms of their social presence in the current context of DVC and FL learning.

Participants commented on power in relation to two main aspects: foreign language proficiency, and leading the conversation by initiating new topics and holding the floor more. Osman also provided a technological interpretation of how DVC influences the perception of power. I categorise power under establishing intersubjectivity, because feeling socially equal and close brings the two subjectivities together.

Filiz described the relationship with her partner as equal language learners. Although initially she expected Nil to have a higher proficiency level due to the university she was registered at, Filiz discovered that they were equal as the conversation unfolded.

Zeynep expressed her confidence in her foreign language skills in the interview and it was obviously one of the aspects she felt powerful about. When asked if she had any prejudices about her partner, she said she had not expected her partner (Deniz) to speak English that well. She assumed he would be less proficient than her, a perception created perhaps due to the university he was attending which required lower language test scores in the university entrance examination. During their interactions they teased each other with humorous banter on their language skills. They jokingly adapted a famous quote from a contemporary sit-com to gain power when they said “My English can beat yours”. By contextualising it as humorous, while trying to gain power, participants also distanced themselves from the proposition. In this learner-learner context, the level of language proficiency was itself a resource of and tool to establish power.

Deniz expressed his discomfort at not being able to express himself as much as his partner did. He especially felt uneasy about not being able to ask his partner (Zeynep) follow-up questions the same way she did. Zeynep frequently interrupted his turns to inquire further. He believed the amount of opportunities to talk should have been “reciprocal” and equal. Deniz believed his level of English proficiency created challenges for self-expression. He found it difficult to construct sentences within the brisk pace of the conversation. This was partially created by Zeynep's intolerance of silences and attempts to hold the floor. In such learner-learner collaborations, participants should be made more aware of the time requirements of their partners, should ensure that they allow their partner plenty of opportunities to express themselves and reduce the pace of the interaction as necessary.

Hale interpreted their equality in interaction in terms of the amount of topic initiations, especially when they finished the task and needed to further the conversation with off-task talk. Hale believed the amount of speaking time should also be equal between the partners.

Regarding speaking time, Emre also thought his partner (Osman) was more dominant in their interactions. Although Emre expected Osman to be more proficient in his language based on his first impressions of "his video image", he perceived Osman as warm and immediate. For Emre, Osman made him feel that they were equal in terms of language proficiency, which they really "were to some extent". Emre felt that Osman was more dominant because he was more talkative. However, he also argued that being quieter was his personality, that he liked listening more than talking. Still believing Osman was better at English, he allowed Osman to dominate the interaction to have a task outcome with better language quality. Therefore, Osman's dominance was in a way caused by the submissive behaviour of Emre.

This was also reflected in Osman's comments. He felt more powerful because he directed the conversation more and initiated more topics. However, holding the power and the floor did not create satisfaction. On the contrary, Osman felt "a bit bored" because he preferred to "learn things from the people [he] share[s] things with". He also may not have felt challenged because, as he mentioned elsewhere in the interview, he preferred to interact with people he perceived as more powerful and competent than himself to progress.

On the other hand, Ali appraised power both in terms of language proficiency level and as the person who "leads" the conversation. Regarding the former, he also had an initial apprehension that his partner's language proficiency would be higher than his based on the university she was attending. During the interactions this assumption faded leaving a perception that they were equal in terms of language skills. In relation to who initiated

turns and thus led the conversation, Ali felt more powerful. However, this responsibility was very uncomfortable and troublesome especially when trying to initiate the conversation at the beginning.

(interview)

Ali: It is a bit of a trouble to initially start a conversation. You look, she looks, you look, and we were not able to start for a couple of minutes.

Finally, Osman made a significant comment on power regarding the influence of the DVC compared to face-to-face interactions. Osman was quite a tall person (about 1.90 cm) and Emre could be considered relatively shorter (about 1.70cm) as a man in Turkish society. While in face-to-face environments the perception of physical qualities is unavoidable, in DVC these features are not that clearly observable. In their second session, when talking about their personalities Osman and Emre talked about their height. Emre was very surprised to hear that Osman was that tall and asked Osman to get up and go near the door so that he could have a point of reference to better visualise his height. For Osman, attenuated physical qualities such as height and eye-colour which are not easily observable via DVC equalise interactants. He said, "You feel more equal in the camera. At least there is nothing you can physically dominate. Like height and the like".

6.4 Emerging concepts of social presence

The particular context of DVC and interaction in FL underscored certain considerations which directly influenced the perception and projection of social presence. These included the technical resources and limitations of the tool, the psychological aspects of online communication and the influence of interacting via a foreign language. I explore these themes of multimodality, beliefs about online communication and foreign language, respectively, in the following sections. Finally, I present participants' perspectives on

apprehension and relaxation in close relation to the previous three themes of technology and language.

6.4.1 Multimodality

I report participants' ideas on multimodality in three sections:

- visual expressiveness,
- eye-contact and
- audio expressiveness.

This includes how the video image helps convey mood, sincerity and warmth and prevents misunderstandings due to language or audio delay, as well as issues on paralinguistic cues such as gestures, facial expressions, head nod, tone of voice, etc. I also emphasise unattainability of mediated eye-contact in desktop video conferencing (DVC) via camera and screen and its implications for sustaining interaction.

I then turn to how participants interpreted a three-minute video extract from the pilot study via stimulated reflection in relation to the influence of each available mode.

Visual expressiveness

In general, participants welcomed the availability of three modes in their interactions (being able to hear and see their interlocutors as well as having a written medium via text-chat). This availability of multiple modes made Zeynep feel more present in the interaction and she found it easier to express things verbally which are difficult in writing. Defne argued that the interaction was similar to face-to-face encounters, and Hale felt that the physical distance decreased thanks to the available modes and "felt as if [her] interactant was next to [her] when in fact she was not". Eda also welcomed being able to communicate in more than one mode and stated that she could understand her partner

based on his facial expressions when the audio was inaudible. For Eda, the only difference from face-to-face was the restrictions on posture and field of view in DVC.

Most participants were able to build up impressions of their partner's character and culture based on their image and the visual background (Deniz, Zeynep, Filiz, Nil, Osman, Eda, Ali). For example, Deniz thought Zeynep "looked like a good person and had a clean face". As Nil was wearing a headscarf, Filiz could not ask her about details of her personal life, whereas she would have otherwise (interview). Ali also maintained that he could interpret visual cues that complete the mental image of a person, cues which are nonexistent in text-only chat. However, Nil emphasized that these impressions might be misleading. When watching her own recording, she thought she looked shy, which in fact she believed she was not. These comments indicated a potential discrepancy between the intended visual projection of the self (while in the interaction), a self-perceived image upon reflection outside the immediacy of the interaction (when watching the recording) and a perceived image by the interlocutor at the other end of the interaction (which is inaccessible to the person unless stated or implied by his/her interlocutor).

In addition to conveying physical information used to make inferences about character, video in DVC also transmitted warmth, intimacy, sincerity (Defne, Hale, Eda, Zeynep). For instance, in interview, Defne talked about an American friend of hers who always insisted on video communication to feel sincerity. Defne also stated that she could sense whether her partner was sincere or not when she could see the person. Likewise, nonverbal behaviour visible in video was believed to project the 'true' intention hidden behind words (Zeynep, Nil, Hale).

Smiles were visible on the video image, which improved the intimacy and effectiveness of communication (Hale, Nil, Filiz, Defne, Emre). Seeing her partner smile when she made a joke was important for Hale, while Deniz believed they were able to express their

emotions such as surprise and happiness by their facial expressions. It was also possible to convey and understand feelings, such as happiness, enjoyment, or displeasure, via facial expressions visible in DVC (Deniz, Defne, Eda, Hale, Ali). For example, Defne and Ali could tell from their partner's face whether they were enjoying the interaction or bored by it.

(interview)

Defne: For example, we skipped some tasks that we didn't like, for example, we were to draw a pig online, we removed it totally, for example, when it was time to talk about it, I could understand she wanted to skip from her facial expressions.

Video image can convey gestures and posture; a relaxed posture and use of gestures facilitate relaxation and positive feelings in interaction (Hale, Defne, Filiz, Eda).

(interview)

Filiz: When I watched again, I thought I was very tense, as if I was only in one position. I thought being relaxed would create a positive effect, because when you relax you remember more things, really, ... I thought the session will be better if I relax, assume you stay the same for forty minutes, you'll naturally start to get bored.

Eda: He leans back in his chair and we continue talking. He looks around, we laugh and so on. It was obvious that he was relaxed.

In relation to sustaining interaction, the video image enabled visual backchannels that provide confirmation to continue, information to interpret silences, and implied listening and being understood as well as retaining attention (Filiz, Nil, Osman). Nil felt her partner understood her based on her partner's comments and facial expressions, while Osman felt, from his partner's reactions, that Emre was listening to, paying attention to, and

respecting him, such as when Emre smiled at an interesting or funny thing he said.

Moreover, Filiz also compared DVC to text-only interactions and highlighted the continuous visual feedback available in DVC which ensured involvement.

(interview)

Filiz: When I say something she nods, says aha and so on, when I see that I say that's okay, I can continue like this. ... she looks at me, approves, then I feel that she is listening, and in fact that she is paying attention to what I say. This was certainly very important.

The video image facilitated interpretation of the message (Deniz, Defne, Hale, Eda). As in face-to-face communication, participants could follow nonverbal cues such as 'making a face' (Deniz, interview) and 'raising an eyebrow' (Eda, interview). Moreover, Deniz and Zeynep suggested that together with tone of voice, video prevented misunderstandings, especially due to humour or irony, and helped communicate the intended message.

(interview)

Zeynep: For example, if I was only writing, sometimes you make a joke or you're not angry, but you can't express that in writing, but with video and audio, especially tone of voice, helps not being misunderstood. For example, it helped our jokes or when we're serious, it helped to be understood correctly, or when we're angry.

However, video could not transmit all gestures because the camera angle was mostly limited to facial expression (Defne), tears were not visible (Hale), and physical characteristics like height were not transmitted accurately (Emre).

(interview)

Emre: For example, I saw you online, I wouldn't have guessed you were this tall.

Osman also said he was tall, that his height was about 1.90cm, he even stood up and showed his height, but you can't see it much in webcam, his height, his weight.

While a restricted visual field (such as unclear facial expressions) could sometimes be a limitation on the interaction, it might be liberating in other contexts. Research on nonverbal behaviour has illustrated the influence of clothing, posture, height and even body shape on how people are perceived by others, for example, in terms of attractiveness, persuasion and power. The absence or blurring of such unconsciously perceived visual cues might encourage shy or unconfident learners to be proactive in participation in the interaction, as in text-based CMC. Although the video image could be perceived as more intimidating than text or voice only interactions, DVC interactions might still encourage social inclusion of learners who believe they lack such power cues (unless these cues are intentionally brought into the conversation, such as by standing up to show height or pointing out an object which would provide a higher social status). Hence, DVC could be said to regulate power regarding physical characteristics and equalise learners, or at least make judgements less automatic and/or superficial.

One very important feature in face-to-face communication which is not possible to sustain online is eye-contact.

Eye-contact

Although some participants (for example, Defne) stated that people might look at the camera to maintain eye-contact directly or indirectly, general consensus was that eye-contact was not possible online (Hale, Osman, Emre, Eda, Ali, Defne, Deniz). While Deniz said he could only see Zeynep's face partially from one side where the camera was positioned and could not look into her eyes, Ali expressed the inability to attain mutual

eye-contact due to the impossibility to look at the camera and partner's image on screen simultaneously.

(interview)

M: Were you able to make eye-contact with Eda?

Ali: It's not possible, because I need to look at the camera to do that, if she also looks at the camera, then how can we see each other, it won't make sense. If only I look at the camera, it might be good for the other, but then I will miss it, that's why it's not possible.

DVC as a tool, did not sufficiently permit the generation of intimacy due to lack of eye-contact and lack of embodiment within a wider physical context (Osman). For Emre, tone of voice compensated for the lack of eye-contact regarding the warmth in interaction. Others, (Hale, Defne, Deniz, Ali) mentioned sometimes looking at the camera. Hale reported in the final questionnaire that she forgot about looking at the camera when talking, while Defne could not identify when she looked at the camera; she said she mostly preferred watching her partner, Hale, while she was talking. Ali also preferred looking at the screen, and thus his partner "90 percent of the time" and Deniz stated that he looked at the camera when he "wanted to give a direct message", like when he teasingly said "shame on you".

In order to obtain a clearer image of the facial expressions, Hale, Eda and Osman suggested staying close to the camera. For example, Hale reported staying close to the camera for a "clear image" and Osman said, "If you are close to the camera, it is clearer, you can understand if the other is paying attention to or not more clearly".

Nil, Defne, Osman and Emre expressed their preference for cameras built into the screen. Nil and Defne emphasised feeling more relaxed with flexibility in posture and Osman and

Emre mentioned a potential feeling of eye-contact. For example, Nil and Emre talked about the conflict between looking at the webcam or the screen caused by the position of the webcam beside the computer screen.

(interview)

M: When talking on the webcam, where did you mostly look, on the webcam, screen..?

Nil: I was in fact looking at the screen when trying to look at the webcam, because I also wanted to see her. I feel it a bit cold to directly look at the webcam, I want to see the reaction of the other. That's why I laughed a lot when watching myself. She was looking at me, and I was looking towards the other side.

M: Was your webcam at one side of the screen?

Nil: Yes, it was next to me. While I meant to look there, I realised I looked at the other side, my gaze was sideways. In fact I wanted to look at her more, like when you want to make eye contact when face-to-face, I felt more relaxed when I saw her. Therefore I mostly preferred looking at the computer screen.

Emre: In fact, it would have been easier if the camera was on top of the computer [screen] in the sessions we had at the internet café ... The camera is on this side, the screen is there ... when you look this way you can't see the other, and when you can't see the other you can't exactly understand what he means.

Thus, an inbuilt camera or a camera attached to the top of the screen was perceived as more natural. Still, independently of where the camera was positioned, Eda expressed her extreme uneasiness (section 5.5) whenever she felt her interlocutor was looking at her from the camera, a feeling which did not exist when she made face-to-face eye contact. This could imply that some people might perceive an attempt to attain direct gaze and eye-contact in DVC as unnatural or even as staring. At another level, it is impossible to

ensure that attempted eye-contact is received at the other end of the interaction, either due to temporal loss of transmission of the video image because of low bandwidth or due to the interlocutor's attention being focused elsewhere on the screen. Pedagogically, intentional use of the webcam is highly relevant to issues of confidence and anxiety. For the online teacher and learner, an awareness of various ways in which intended eye-contact might be perceived is crucial to accommodate a variety of interlocutors, perhaps especially inexperienced users of DVC. It is also important to make an effort to look out for linguistic and paralinguistic cues of embarrassment or uneasiness whenever direct gaze is pursued, despite the challenge of moving the gaze rapidly between the webcam and the screen to observe the reactions of the interlocutor. This mismatch between intended and perceived uses of the webcam, that is, supportive eye-contact or a challenging stare, and the difficulty of simultaneously observing the reactions of the interlocutor is a potential communication obstacle built into current DVC technology.

Eda reported in the final questionnaire that she "always looked at the screen", and similarly looking at the screen was quite natural for Hale as everything was there including the video call, her partner, her own video image and the tasks.

(interview)

Hale: I generally looked at the screen, not at the camera. The video call is on the screen, I can already see myself there. Defne is also there. The tasks are also there.

Interestingly, Hale found seeing herself, an unnatural experience in face-to-face communication, reassuring, implying that what is natural in the DVC context could be different from face-to-face interactions. While accepting or even desiring to see one's own video image could be due to prior experience via similar tools (such as MSN Messenger which all participants knew well), it could also be a willingness to control the projection of the self via the limited and defined visual field of the webcam. Like a director adjusting the

visual frame, participants tended to select camera angles to transmit their image or another object or person to their partners. For instance, Ali (Case 5) frequently moved the camera position to suit his own posture when he moved (reclining in his chair or sitting upright), and Deniz (Case 1) turned the camera away to show his friend, leaving himself out of the visual field.

Meanwhile, participants with fixed, inbuilt cameras did not complain of lack of control; they usually had a wide frontal view of their portrait (Hale, Filiz, Eda). Some participants using separate cameras made no mention of it (Zeynep), while others complained about the inability to move the camera as they wished (Nil and Emre). The individual variation seems to depend both on the way learners would strategically use the webcam to project their image, and on hardware specifications.

Although some learners might expect to see their own image and would be comfortable with seeing it (such as Hale, Deniz and Ali), others might avoid their own image if they lacked self-confidence or found it distracting and/or anxiety-provoking to see themselves. Moreover, avoidance of looking at one's own video image (and perhaps the other's), as was the case for Zeynep, might be due to an uncomfortable physical environment (such as an internet café) or to an unconscious attempt to suppress anxieties about one's own image provoked by the attractiveness and/or status of the conversation partner.

Current tools display a varied choice on availability, size and quality of the participants' images. For instance, Elluminate (at the time of data collection) allowed for only one video image to be transmitted to multiple numbers of receivers, and does not support feedback in the form of immediate video backchannels. Free tools familiar to a wider range of users (MSN Messenger and Skype) allow only two people to share live video, and both allow simultaneous interaction. By default, MSN Messenger transmits equal sized videos, while in Skype one's own image is smaller than the interlocutor's. Inequality in video size would

perhaps result in an inequality in terms of attention paid to each image. Other tools (such as Flashmeeting and ooVoo) provide video images of multiple participants. They, too, differ in terms of the size and refresh rate of each video image. While in Flashmeeeting the speaker's video image is larger and has a higher refresh rate than the video image of other participants, the video images and the refresh rate in ooVoo are the same for everyone present in the interaction. And while ooVoo provides equal access to all resources for everyone, Flashmeeting prioritises the speaker. When selecting the tool for DVC interactions, all these features should be taken into consideration in line with the specific requirements of the learners and the language learning tasks.

Therefore, the existence of one's own image on the screen in addition to that of the conversational partner underscores two important issues for software and hardware design. First, the influence of being able to adjust the position of the webcam (even when inbuilt) or availability of multiple webcams and selection of a preferred angle could change interlocutors' practices in terms of their awareness and strategic use of the camera position in projecting themselves. And second, the influence of the availability, size and refresh rate of the speaker's and listener's video images should be explored in language learning contexts. In terms of software design, the option to select the presence, size and refresh rate of live video would allow for individual variation and suitability to various contexts.

Participants reported that they looked at the screen mainly to see their partner's visual reactions and backchannels and understand her/him better (Hale, Osman, Deniz, Nil, Zeynep, Defne, Emre). Specifically, video image helped Zeynep and Defne determine audio delay or problems and avoid interruptions.

(interview)

M: When did you feel the need to look at the screen, to your partner's image?

Zeynep: I don't know, I looked to see if he was laughing when I made a joke, or if he understood but did not give any reaction. Also my audio was delayed, I looked to see if he heard me, listened to me. If he was still talking, then I thought he is talking and that's why he didn't hear me or my voice was delayed.

For Defne, looking at the screen was a way to indicate to her partner that she was listening, paying attention and involved in communication. She, herself, felt the same when she thought her partner was looking at her. Similarly, Deniz and Nil stated they would wonder whether their partner was listening if they saw her/him looking around. However, for Zeynep, looking around would not necessarily mean not paying attention.

(interview)

Zeynep: Looking means listening, but this might seem contradictory; I wasn't looking at him, then wasn't I listening? No, I was, but of course looking is important.

Zeynep's gaze was perhaps influenced by her uneasiness in the physical environment, that is, an internet café. She was usually looking around to see what others were doing, whether she was disturbing others as she was trying to keep her voice low, or else she was distracted by the noise or movements of the others in the café. This self-consciousness also has pedagogical implications in drawing attention to the physical context of the learners. While tutors and language learning partners might overlook the inaccessible visual field for themselves, the invisible background of the partner would certainly have an influence on the partner's interactions and thus on the conversation.

Hence, DVC supports visual expressiveness sufficiently to provide participants with a stimulus to make inferences about cultural background and identity as well as about

emotions, attitudes or feelings. The image also functions in turn-taking processes. The clearer the video transmission, the more detail transmitted, and, in turn, the better the interaction. However, eye-contact is impossible to maintain (at least with the technology that was available to the participants at the time) and intentional use of the camera is utilised for varying purposes and interpreted with varying feelings.

Vocal expressiveness

There is no doubt that audio in DVC is not as clear, or expressive, as in face-to-face communication. Participants experienced audio delays and echo (some more than others, depending on their technical facilities). Some complained about the digital sound and lack of background noises which increased artificiality. For example, Hale argued that audio was clearer in face-to-face interactions and Osman advanced the idea that voice in DVC could not reflect emotions or different layers of meaning that could be inferred from, for example, empathetic exclamations or noises.

Therefore, connection quality, as well as the restrictions of the physical context, mostly determined audio quality, and thus, the quality of interaction (Defne – interview). For instance, Zeynep stated that she felt compelled to speak in a quieter voice, because the internet café she was at was crowded and she did not want others to hear her, thinking they would make her feel out of place. Other participants also talked about their uneasiness at speaking in English in front of other Turkish people, whether strangers (Eda, Filiz) or family members and classmates (Nil, Ali).

Despite these technical, psychological, or contextual issues in audio expressiveness via DVC, audio could clearly convey certain feelings or attitudes, such as enjoyment from the interaction and the willingness to continue or in contrast boredom and nervousness. Hale and Defne suggested avoiding a nervous tone, both stressing that a nervous tone would mean uneasiness and discomfort, which would then be mirrored by their interlocutor.

Others (Eda, Deniz, Zeynep, Filiz, Emre) also mentioned the ‘feel’ of interaction generated by tone of voice and suggested speaking in a cheerful tone “to make the conversation more enjoyable” (Filiz, final questionnaire).

While audio was perceived to determine the quality of interaction and the feeling mediated by tone of voice was believed to be reciprocated and mirrored by participants, some participants preferred video over audio. For example, Eda stated she would rather have video than audio when text-chat was available. (Overall there was not much text-chat in the DVC sessions. The functions of text-chat are analysed in section 6.6.1). Zeynep also said she did not look at Deniz’s image much during their conversation and believed lack of video would not change anything in their interaction as she noticed most of his visual features upon reflection when watching the recordings. Nil was the third participant who claimed to have formed impressions of her partner based predominantly on audio messages, with video having little effect. However, it was interesting to see how her beliefs changed when watching a clip of pilot study participants when modes were separated; first watching the clip without audio, then reading a transcript of the interaction and finally watching the clip with audio. After listening to the interaction, Nil, then suggested that their emotions and shyness were clearer in their tone of voice as well as smiles and variation in the pitch of voice. This reinforces the view of multimodality (section 2.3), whereby the total effect is a combination of all of the available modes and the influence of each mode is difficult to isolate.

I now turn to participants’ comments upon a short recording from the pilot study to stimulate their views on the impact of different modes.

Stimulated reflection on different modes

In this section I present participants’ comments on the influence of different modes (text, audio and video) elicited via stimulated reflections on a pilot recording. The modes were

presented in a different sequence in both phases as explained in the data collection instruments (section 4.4.3) and summarised in Table 6. It was a three minute DVC recording via Skype in English between the EFL teacher trainees Aylin and Birsen. They were total strangers and it was their first online session. The transcript of the interaction can be found in Appendix 10 and the video file in Extract 4.4-1_pilot recording on the CD. The modes were separated for reflection by providing a written transcript of the interaction as might have happened in text-chat, isolating the audio and also the video. In what follows, I provide the comments of each participant on each mode (text, audio, and video) individually and then summarise the main points that emerge from the analysis.

Reflections from participants in Phase 1

Deniz, Zeynep, Filiz and Nil were the participants in Phase 1 and the sequence of the presentation of the modes was as follows: text, audio (+text), video (+text, +audio).

When reading the transcript of the interaction, Deniz thought Aylin was contradicting herself when she initially said she wanted to be a social person but later on changed her mind to prefer being alone. Deniz suggested that Aylin's change in attitude could be due to jealousy or a face-saving attempt, after Birsen presented herself as a social person with plenty of friends. However, Deniz could not definitely conclude without watching and hearing the conversation. Again when reading the transcript, Deniz highlighted the way Aylin and Birsen were trying to find commonalities with each other, paying attention to the way Birsen said 'I'm just like you', a phrase which would perhaps be coded as 'self disclosure' in terms of Rourke et al.'s (1999) template and as 'intersubjectivity' in the current study. Moreover, commenting on the lines where Birsen only replied with a 'Thank you' to Aylin's 'I like you'; Deniz thought Birsen did not reciprocate which he perceived as a negative response to the strong self-disclosure made in the phrase 'I like you'. Thus, for Deniz, as an adjacency pair, self-disclosure should be reciprocated and followed by self-disclosure (Tannen, 2005). Still he believed it would become clearer when watching and

listening to the recording whether there was any interruption that prevented reciprocation or whether it was intended. Moreover, when reading, Deniz found the smileys in the transcript positive, but he was not sure if those smiles were genuine.

After listening to the recording, Deniz did not make many comments, but still felt the conversation was a bit cold, “perhaps due to using English”. He did not elaborate more on that comment. However, based on his own comments of how speaking in English restricted the way he could express himself, he might have considered potential difficulties Aylin and Birsen might have had in projecting or creating warmth in the interaction in English.

After watching and listening to the recording, Deniz was no longer that negative about Birsen’s lack of reciprocation when she replied with a “Thank you”, and he said Birsen “at least smiled”, which was “warm”. For Deniz, there could be other reasons for the lack of reciprocation such as Birsen’s anxiety, either due to interacting with her partner for the first time or due to her inadequate proficiency in English, which prevented her from thinking about her partner’s expectations. Furthermore, when watching the interaction, he was now sure about the warmth of the interaction and sincerity of the smiles. Again, when both audio and video were available, Deniz could make other assumptions such as “they are listening to each other now”, especially obvious when they smiled at each other, or “here she looks as if she is about to say something”, or “she looks as if she is constructing the sentence in her mind”. These comments implied that video provided useful visual cues for turn-taking.

Like Deniz, when reading the transcript, Zeynep thought Aylin was not being consistent and honest. For Zeynep, after finding out about Birsen’s social relations, Aylin perhaps changed her attitude to ‘I do not have friends, but it is not really important, I like it like that way.’ and hence to ‘I don’t care’, hiding her real self and saving face. Therefore, Aylin re-

constructed the projection of her identity in the later stages of the interaction as an independent person who enjoyed and preferred time on her own. However, when watching and listening, Zeynep changed her perspective and felt Aylin was sincere when she said she did not have many friends, based on her attitude, appearance and tone of voice, which suggested some embarrassment and even sadness. Thus, the availability of audio-visual modes led to different interpretations of intended meaning in relation to how the speakers position themselves and align power in the social interaction.

When watching, Zeynep was able to distinguish between the quality of the smiles and the way in which they indicated warmth, a bit of embarrassment as well as understanding. Zeynep's other brief comments included variety in turn-length between participants when reading the transcript and how audio features, such as sighs or articulation of the words slowly and one-by-one, facilitated constructing impressions about the interlocutors.

Like Deniz and Zeynep, Filiz initially focused on the content of the interaction and commented on the contradiction in Aylin's social relations and when reading the written interaction had doubts whether she was being sincere or was saving face. Just like Zeynep, her views became clearer after listening to the conversation and she then believed that Aylin was really finding it difficult to make close friends at university.

Again focusing on the content of the interaction when reading the transcript, Filiz assumed "Birsen was a bit more social than Aylin, as she had friends while Aylin complained about not having close friends at the university". However, Filiz's impressions again changed after hearing the audio, where her attention was directed to Birsen's backchannels and the length of these turns. Filiz no longer thought Aylin was antisocial or timid, because when listening to the interaction Filiz realised that overall Aylin talked more than Birsen and that Birsen was quieter, most of her turns consisting of confirmations, okay's or paralinguistic backchannels such as "hi hi", indicating confirmation, acceptance, or

understanding. Filiz thought Birsen did not continue the conversation and brought it to an end with short responses whereas she could have provided suggestions, advice or simply could have probed more and been more engaged. Hence, Filiz concluded that they could not overcome the psychological distance and thus, they failed to become closer. Short responses meant that they did not have much common ground to share and talk about. This was exactly what she thought about Nil, her own partner, who, for Filiz, did not continue the conversation much, gave short responses, was not fully engaged or did not initiate new topics.

Although Filiz felt a distance between the pair when reading and listening, after watching the interaction she thought they tried to be warmer via smiles, facial expressions and warm looks. Overall, Filiz thought the pair were not very close and were still getting to know each other, because they did not have much to talk about, that is, they had yet to establish intersubjectivity to ensure a good flow in interaction. She also said if she was given the choice, she would have preferred talking to Birsen, because she smiled more and tried to be more intimate. It is important to note here that Filiz, herself, had also struggled to find topics to talk about with Nil and Filiz was the one who smiled more in their interaction. Filiz also perceived Birsen to be more nervous based on her hesitant speech and the way she moved uneasily in her chair.

Turning to Nil's comments as the final participant in Phase I, after reading the transcript she also built impressions focusing on the content of the interaction and thought Aylin was a bit pessimistic, introverted, did not like talking to people and enjoyed her solitude. On the other hand, she perceived Birsen to be more relaxed and eager to meet new people. The audio did not change her initial impressions; on the contrary, they perhaps became more pronounced. Nil mentioned that the emotions were not reflected in the text and that Aylin's timidity was also expressed through her giggles and smiles and her low pitch of voice, compared to Birsen's which was higher and stronger. Watching the video certainly

confirmed Nil's impressions; she argued that Aylin's gestures also signalled her shyness, as she played with the arms of her jumper, "like when you do not know where to put your hands when embarrassed". Nil also thought they were bored from the way they looked in the video. While Nil perceived Birsen to be more cheerful and "live" as observable from her smiles, she could not see enthusiasm in their images. Nil empathised with Aylin and thought she could be bored due to her initial anxiety, as she herself was during her interaction with Filiz. Therefore, Nil could read the audio-visual cues provided in the interaction, especially making use of semiotic resources such as tone of voice, use of gestures, quality of smiles and facial expressions to make inferences about how the interactants felt individually as well as about the 'feel' of the resulting interaction.

Reflections from participants in Phase 2

I now turn to reflections on the pilot study by participants in Phase 2 (Defne, Hale, Emre, Osman, Eda and Ali). Once again, I would like to emphasize that the sequence of the presentation of the modes was different; this time participants' comments were elicited first on the video (without audio and transcript), then on the written text (I provided the transcript and replayed the video, however, most of the time they were reading rather than watching) and lastly on the audio played with the video (the transcript was also available here, but again participants mostly watched and listened to the interaction).

When only watching, like Nil, Defne made the same comment on Aylin's nervousness in connection with the use of her hands and her uncomfortable posture, which she related to herself when talking to Hale. Based on the video images, Defne thought they were close, but she could not say that "it was a real closeness". She did not think they looked bored, but their uneasiness and distance was perhaps stimulated by the existence of the camera which generated the feeling of being watched, "being under surveillance".

When I then presented Defne with the transcript, she focused on the content of the interaction. She thought short responses indicated the points when the interaction was tense and did not flow well. Defne also picked up on certain expressions and the feelings they arose. For instance, she perceived Birsen's 'I'm just like you' and 'thank you' and Aylin's 'that's all', as "formal, like a stranger, as if they did not have a lot to share", indicating a lack of intersubjectivity. Based on the video images and the transcription of the interaction, Defne was able to form impressions of their character and thought Birsen was "more cheerful and had the potential to be chirpy if she felt close". Aylin, on the other hand, "looked timid, but not introverted".

The audio reinforced Defne's interpretation of Aylin's tenseness. She said she "saw herself in Aylin" and confirmed her impressions when Aylin's calm, slow voice was combined with her gestures and posture. Although when only watching, she thought it could be their second or third interaction, when she heard the voices, she was quite sure it was their first. For Defne, the audio also made the hesitations clear and their indecisiveness on how to continue and what to say. Overall, Defne concluded that, if Aylin and Birsen got used to each other, they would have the potential to become more intimate and sincere.

Defne's partner, Hale, was hesitant to make generalisations and to state her impressions based only on the video. She said it looked like a nice conversation as they were smiling, but she wished to know about the content before commenting further. She was not sure how well the pair knew each other just by watching, but thought it was a close and warm interaction given the smiles following each turn. Based on the video images, Hale also thought Birsen was more relaxed as she moved in her chair, and used her body language better. She said she would have preferred to talk to Birsen, because she was more relaxed.

However, when reading the text, Hale pointed out Aylin's longer turns. And regarding the content, Hale could then say that Aylin was shy referring to her line "I don't like being shy". Hale further commented that while Birsen's behaviour was very intimate (*samimi*), she perceived Aylin as more intimate overall because she talked and disclosed more and "told her [Birsen] everything".

When Hale finally listened to the conversation, she found Birsen warmer, Aylin open and honest. Reflecting on her own experience, Hale noticed the echo Birsen had, and thought that was perhaps why she spoke less. Like Zeynep, Hale did not find 'I like you' to be suitable for the first interaction and thought it must be at least their second or third interaction.

Another pair in Phase II was Emre and Osman. When watching only, Emre could make inferences based on gestures and body positioning of the pair and he was able to conclude that both Aylin and Birsen were nervous because they were moving their hands about, leaning forward and reclining. For Emre, the anxieties – which also occurred in his interaction with Osman – were natural.

When reading the transcript, just like most others, Emre focused on phrases such as 'I'm just like you', 'I like you', and how Birsen was being sympathetic and tried to console Aylin as well as finding common ground using these expressions. He thought they were close and sincere.

When listening, Emre found Birsen's tone of voice quite funny and commented on the echo Birsen had, which for him resulted in disfluency. He mentioned that he had the same experience when talking to Osman. Emre perceived them as less anxious when he heard them as opposed to just watching the recording.

Emre's partner, Osman, was able to make lots of stereotypical assumptions based on the video images. Commenting on their complexion, he thought Birsen was from a Western university, with a higher entrance score, which implied better English; and perhaps from the look of her room she came from a middle class family and was well educated. Likewise, he thought Aylin was from an Eastern university, with lower entrance scores. The divide between the West and the East implied more cultural generalisations.

(Interview)

M: What kind of people do you think these are, can you say anything about their personalities?

Osman: The girl on the right seems to be from the Marmara or Aegean regions, she's blond and relaxed. She is perhaps the one from NU, she is near [name of city in the North-West], she got a good grade and went there. This other girl looks more like an Easterner, because she is near [name of city in South-East], her grade was not very high and she went there. And also a bit because she has a darker complexion, from her eyebrows and so on, these tell me that she is from the East.

Moreover, based on the video image, Osman thought Aylin was more nervous, regarding the position of her hands under her chin and the way she pulled the arms of her jumper and Birsen was more relaxed sitting in a stable posture. He thought Birsen was bored, relaxed, was not as interested as Aylin and looked as if she was more experienced in online DVC conversations. He thought the interaction was warm, but not quite sincere yet.

When given the text, similar to other participants, Osman focused on the 'I like you' and 'Thank you' pair and as Birsen did not reciprocate and did not say 'I like you, too', he thought Birsen was posh and showing-off (*artist*), which for Osman allowed her to sustain power and to continue Aylin's interest and admiration. Osman felt that the transcript "predominantly supported" his prior impressions based on the video images. Osman

thought the interaction was “warm enough”, although Aylin’s smiles were “more sincere”. He felt they encouraged each other to talk more, but that would not have helped sustain the interaction for long, because Birsen would have got bored. For Osman, Birsen was passing on the knowledge and experience like “from 10 people”, whereas Aylin failed to incorporate as much into the interaction and was like only “1 person” compared to Birsen. From an objective perspective, the transcription did not contain any incorporation of knowledge from Birsen “like from 10 people”. It was evident that Osman was still under the influence of the stereotypes he created based on the video images and the content of the interaction was ancillary. Such comments from Osman also reflected his perspective on his own partner, Emre, and were perhaps quite important when interpreting the downturn in their interaction once Osman felt Emre was unable to contribute much to the interaction and react as fully as he wished, especially after he learned more about Emre’s background and where he lived (from a smaller town and not often away from home).

Finally, when Osman listened to the conversation, he was very confident about his interpretations and felt the audio confirmed his initial stereotypical assumptions. Osman thought Birsen had a better accent, which suggested that she perhaps had been to a language course, which in turn meant that she and her family could afford it and thus had a better socio-economic status. Birsen’s speed of speech and tone of voice was also more pleasing for Osman. Aylin’s voice was “warmer”; while Birsen contained her “coolness” as the interaction was “ordinary” for her. Likewise, Birsen’s “smiles were not as sincere”, and “everything was more normal and formal” for her. Again this was very similar to his own experience with Osman being the one with insincere smiles. Osman also thought Aylin was not very fluent, with lots of pauses filled with “erm”s in her talk, which implied anxiety, which prevented her from combining words smoothly. On the other hand, he thought “Birsen was calm; she listened to Aylin and easily said her sentences at one go”.

Before I move on to the participants in the next pair, below is a lengthier quote exemplifying the way Osman made inferences about the participants in the pilot recording when all three modes were available. His comments below indicate the way he looked at social relationships and is perhaps very useful when interpreting the interaction between Osman and Emre.

(Interview)

M: What would you like to say?

Osman: This girl Aylin, I have decided for sure, she is a bit from a lower society and from a city in the East, even maybe not from a city but a town, maybe a village ... partly from her voice. For example, she perceives university as very different, okay, she had never seen the university concept before, she is in for the first time, she calls it crazy, however people are like this. I think she found this odd, on the contrary, she should have got used to it. For instance, this girl is like that, she got used to it or I understand that and I am pretty sure about that. And she is already from [name of a big north-west city], studying at [name of university]. She looks like a daughter of a well-off family in terms of background and socio-economic status. This is very important, we're not a modern society yet, and we know what the background of the professors at universities are. They are all village boys. How can we compete in research for the ideas of a post-modern society, how can we produce theories for them? Well, this girl is more different, to be honest a lot different. She comes from a more modern background and modern family structure, more luxurious, I should say. Other than that we can understand from these, her English accent is good, and that made me think that she went to an English course, because I once went to an English course for a while, she talks like the people there. She seems to have attended an English course for a while, or at least to skip the preparatory year at university's summer school. And of course, those courses are again related to money and the family. Otherwise, as I said, for example, in international relationships,

people like Aylin feel the need to be complimented. But someone from a more modernized society takes it well, appropriates it in his/her identity, and does not feel the need to reciprocate the compliment, at least not right away like this. Do you know what I mean?

M: You are talking about the 'I like you, thank you' instead of 'Me, too.'?

Osman: Yes! Exactly.

Moving on to the participants in the last pair, when only watching the video, Eda thought both Aylin and Birsen were involved in the interaction, Aylin talking a bit more than Birsen, and that both were relaxed. She thought they were not and could not be very close, but that "they were trying to be intimate". And lastly she thought they both looked a bit shy and not very social. After reading the text, Eda did not make many additional comments. She thought it was the second interaction and was surprised to hear that it was only the first. She thought they were warm and felt they were able to find common ground, talking about friendships, especially with Birsen's invitation in her last turn for Aylin to talk about her friends in secondary school. And finally upon hearing their voices, Eda said her impressions were confirmed and that they were listening and trying to get to know each other. Eda clearly had quite an objective interpretation of the interaction and avoided making a lot of assumptions. Her interaction with Ali followed a similar path: she would take things easy, avoid assumptions and show tolerance and patience.

My last participant, Ali, watching the video interaction, thought Birsen looked like a "calmer and quieter" person and Aylin a bit more grumpy ("*cadaloz*"). He thought they seemed to listen to each other, which was indicated in their orchestrated nonverbal behaviour, such as smiling at the same time. Ali felt they were not very close because their posture was not relaxed; they neither leant back nor did they use their gestures freely. However, Ali believed that although nonverbal behaviours were important, what and how you say

something was 90% influential in determining the warmth of an interaction. Hence, he wanted to know what the content was before commenting further.

Upon reading the transcript, Ali was able to conclude that Aylin was more talkative, relaxed and sincere, "talking openly about everything", whereas Birsen was a bit more closed, commenting in short turns, replying "for the sake of replying". He could not comment whether they were nervous or excited without hearing their voices. He said, "It makes a difference to read these expressions statically, and with a tone of voice".

And finally, when Ali had access to the audio, he was able to conclude that Birsen had a high-pitched voice which suggested she was a petite and sweet girl. He thought it was obvious that Aylin was lying when she said "I like to be alone" based on "the way that she [said] it". Ali assumed that everyone would like to have friends and she was saving face by trying to conceal her failure to make friends. For Ali, the audio clearly made a difference and he, like others, had thought Birsen spoke more when only watching, but upon hearing the conversation it turned out that it was Aylin who spoke more. He said he felt the intimacy and sincerity between the pair "when he heard their voices". He thought their nervousness surfaced through their disfluency in English, because he believed anxiety was a block against fluency which "makes you forget things". He was also aware that this was his perspective relying on his own experience, which he expressed as follows:

(Interview)

Ali: ... of course, everyone interprets it in relation to himself, I look at it from this perspective because everyone perceives the other like (via) himself.

To summarise, I would like to make the following points in the above analysis of participants' reflections:

- When just reading, participants focused on the content and especially on self-disclosure and absence of reciprocation (where 'I like you' was not followed by an 'I like you too' sequence or adjacency pair) and inconsistencies which might have been used for face-saving (participants felt Aylin was not reliable and honest as she changed her mind from a willingness to be more social to enjoying being alone).
- When reading only, some participants felt the attitude or intended meaning of the message would become clearer when watching and/or listening to the interaction, and refused to infer any further.
- Likewise, some participants were able to form impressions and make judgements about the personalities of the interlocutors based on the visual appearances only, while others refrained from making stereotypical judgements and wanted to read the content and hear the conversation.
- When judgements were made, there was individual variation in how the cues in the available modes (written text, audio and video) were interpreted.
- As in face-to-face interactions, audio-visual cues in DVC allowed participants to make inferences based on the nonverbal conversational cues for turn-taking mechanisms such as the interlocutor's attempt to take and/or give the turn or paying attention and listening.
- Posture, position changes and gestures visible in the video provided crucial cues in determining the emotional and apprehension states of the interlocutors. The interpretations based on the visual cues were clarified or emphasized based on audio cues such as sighs, smiles and disfluency.
- Participants had different perceptions of who held the floor more when only watching than when they read and heard the content. In particular, upon reading the interaction, participants became aware of the long turns of Aylin and noticed that Birsén's turns were shorter and mostly consisted of audio and visual backchannels. In a way, while Birsén looked more involved in the video, the actual

content proved that she made minimal contribution. Therefore, the impressions of involvement did not depend on who actually held the floor more, but on visual and verbal expressiveness, especially in the form of backchannels.

- Warmth, closeness, emotions and intimacy were clearer in audio and video modes than in text-only. Participants' doubts as to whether the smiles were genuine disappeared upon either watching or listening to the conversation.
- Participants' comments were very much influenced by their own experience in ooVoo. Hence, how learners interpret the various semiotic cues in DVC in order to form impressions about their interlocutors might be influenced by their prior experiences.
- While initially some participants thought hearing did not have much impact and video + writing would have provided enough cues to understand feelings and attitudes and the underlying intention of the message, they changed their minds after listening to the pilot interaction. Conversational cues in the aural channel, which clarified attitudes and social positions, became more evident when the modes were presented separately. These audio cues were sighs, giggles and smiles, accent, pace in articulating the words, fluency and hesitations, and tone and pitch of voice.

Moreover, in relation to the influence of the written, aural and visual modes, I also argue the following:

- Audio-visual cues in DVC which clarify implied meaning and create impressions of personality are transferred without conscious effort, while in text-chat other semiotic cues, such as emoticons and punctuation, need to be consciously produced. Even then, these written cues may be perceived with doubt as to their authenticity.
- Video (moving image) when accompanied by only text-chat is used to eliminate ambiguities of 'what the other person is doing', (i.e. whether they are present,

listening, or away for a cup of tea) and convey humour or emotions, especially when they could be misunderstood (when they do not comply with Gricean maxims).

- Image (moving or still) provides embodiment and a visualisation for the person, allowing certain assumptions to be made but may not be that influential throughout the conversation (except at certain crucial points mentioned in the previous point) and could easily be overlooked once an image of the person is created (as is reported in studies where students need the video more in the first tutorial when meeting with others, and use it less once they have established an image of the interlocutors).
- Different modes (text, audio and video) and different combinations of modes (text+video, audio+video or text+audio) might allow for varying degrees of expressiveness and could be chosen for different task requirements.
- Likewise, different combinations of modes might create different levels of intrusion into people's personal space. In written only communication (text-chat) the speaker can control the amount of information revealed (both, for example, by consciously including empathic punctuation, and by subsequent revising and editing). However, subconscious and/or unintentional paralinguistic cues transmitted via the audio and visual modes cannot be avoided (most of the time) and can reveal more information about the self than would be willingly presented.
- In foreign language learning contexts, the benefits of text-chat have been documented widely, as it provides opportunities for self-correction as well as a worry-free environment in relation to pronunciation and fluency. While in face-to-face settings it is widely accepted that understanding someone in a foreign language is easier with the availability of gestures and facial expressions, in DVC the potentially intimidating influence of video and the pressures of fluency and pronunciation in audio should be carefully considered. As learners' access to hardware, software and bandwidth increases, research into understanding who

would benefit from multimodal CMC as well as when and why DVC could be preferred will become more prominent to achieve a successful learning experience.

Finally, I provide a network view for multimodality (Figure 14) which indicates the relationship between multimodality and the rest of the themes in the study. The network view presents a visual summary. In the centre of the figure are coded segments of the data. The high density of the lines that link codes to various themes towards the upper part of the figure display high relationships between multimodality and the themes coded as posture / webcam, visual and vocal expressiveness, smile, cyberspace/online communication, eye-contact, apprehension/relaxation and feel close/warm/intimate.

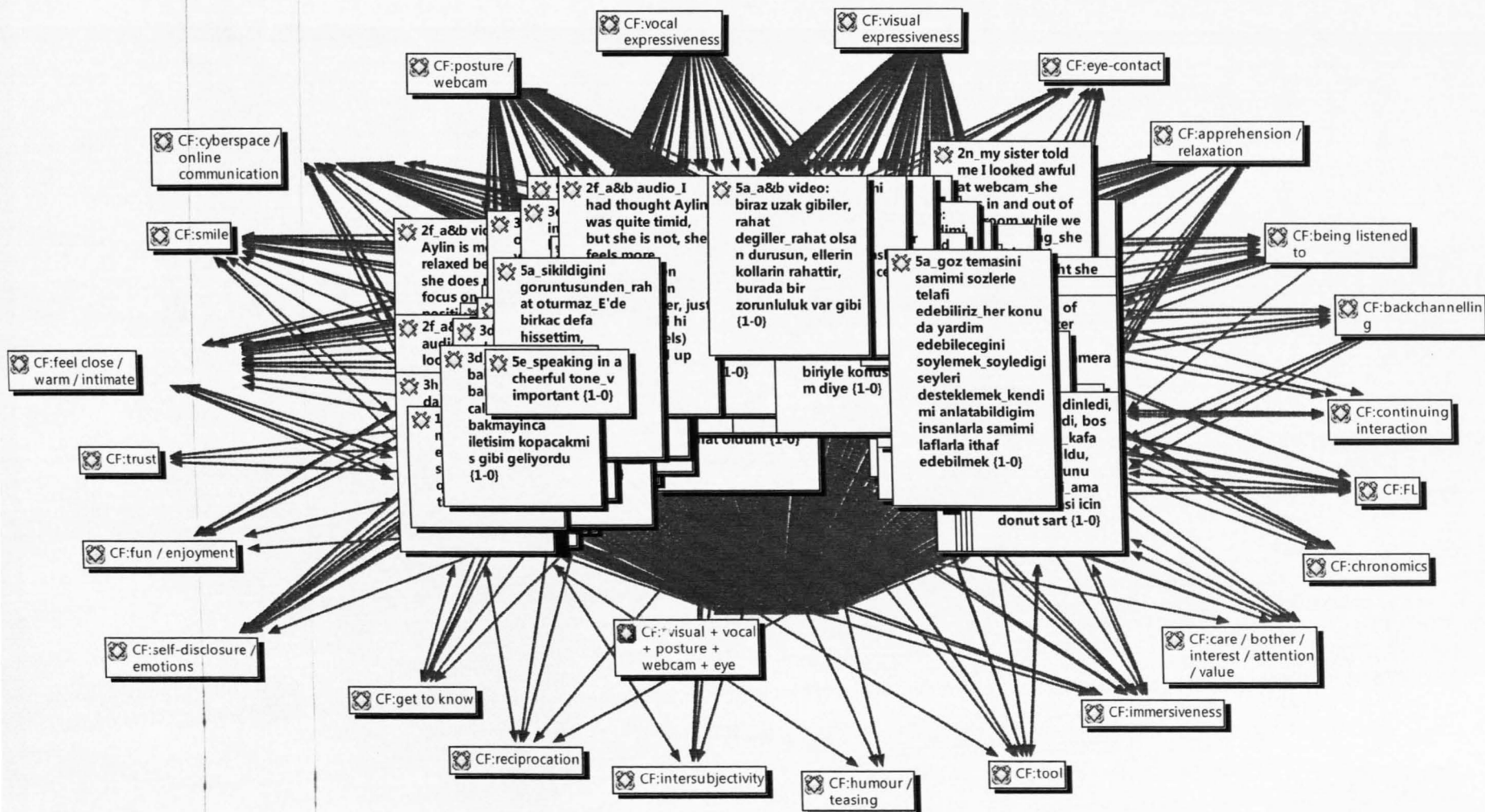


Figure 14 Network view: Multimodality (visual expressiveness + vocal expressiveness + position of webcam + posture + eye-contact)

6.4.2 *Beliefs about online communication*

Participants' beliefs about online communication were related to the psychological aspects of mediated interaction. They were coded under three major dimensions: cyberspace and online communication, trust, and immersiveness. I provide a summary of the main arguments at the end of the section.

Cyberspace and online communication

Compared to face-to-face communication, participants mentioned technical problems such as difficulties in hearing the voice of their partner and the echo, which interfered with the flow of their conversations (Hale, Emre, Ali). Echo was especially distracting for the FL learner as it was like listening to your own recorded voice. Emre explained this as follows:

(interview)

Emre: You hear your voice again and it feels weird. .. and you also speak in English, it echoes and you think is this how I speak. ... You are going to say I have two friends, you say I have, then you wait, hear I have again, then say two friends, and hear two friends again, then you lose fluency.

Continuing the interaction was also more difficult in relation to finding things to talk about, because they did not know each other beforehand and had no previous life experiences together to discuss (Filiz, Ali). Hence it was important to ask questions or introduce a new topic when interaction was stuck and did not move forward (Zeynep). Moreover, online communication lacks embodiment and participants thought that the lack of an immediate physical environment restricted the topics they could talk about. They considered time spent together in face-to-face interactions as more flexible, while time was also restricted online (Filiz, Defne).

(interview)

Filiz: We felt that this is a study and we'll talk about the topics, as if there was a certain time, and the time will end and the interaction will end, too. But when you are with the person, you are comfortable, you talk, like there is no limit, you act the way you want; you can even talk about the environment.

DVC interactions were also perceived as weird and less effective than face-to-face interactions because the movements were not simultaneous, for example, the time delay in transmission of gestures and facial expressions, such as when you move your hand (Filiz) or blink your eye (Emre). Furthermore, visual turn-taking cues were not always clear in DVC, resulting in overlaps or awkward silences (Emre).

(interview)

Emre: When talking online, with video, it feels different; the movements are slow as if they are in slow motion. If connection is slow, the image freezes and your image stays the same, funny... for example, you blink your eye and look, your image still keeps blinking, that's quite funny.

...

Emre: For example, I can now see when you will talk, and keep quiet for you to talk. But it's not like that there, you wait for him to talk, maybe he'll say something. He waits for me to talk too, and then there is a [communication] gap.

Participants predominantly believed online communication via DVC was inferior to face-to-face interaction which was in accordance with the initial views of social presence that lean media allow less social presence. For example, Hale and Filiz thought face-to-face interactions were vivid while in DVC they were not. Deniz also thought everything was inferior online, and superior when face-to-face. When explaining what he meant, he said as DVC was virtual, "you slouch in your chair and it is nothing, you just look and talk". His

comment underscored the lack of physical action online and his belief that all action is realised via discourse. For Emre, DVC reflected a limited visual perspective and he said (interview) "you see with the eye of the camera ... when face-to-face things are more obvious. For example, Osman was tall, you can't see that on the webcam, but when face-to-face you can see these better, both personal and physical characteristics". Osman advanced similar views on lack of embodiment and limited camera angle. For Osman, face-to-face interactions were real, but the camera was relatively abstract. His perspective also represented a difference between the emphasis on the receiver or the sender of nonverbal resources. While in face-to-face interactions the listener selects and directs his/her perception, in DVC the listener's selection and perception are directed by the speaker's selection of visual content.

(interview)

Osman: It cannot be the same as being in the same place with a person and the camera, never. For example, older people say I saw on the camera and felt like I saw alive, but it is not like that... This is real, but the camera is relatively very abstract. Your hair blows in the wind ... it is quite different to share the same environment. And you also see more clearly. I can only see as much as you show me in the camera, but when we're in the same environment I can see as much as I wish.

The idea that DVC was visually restricted, allowing a limited perspective which was not as 'vivid' as face-to-face interaction, was closely related to participants' construction of online identities. First, they believed online identities were constituted with the positive or 'good' sides. They argued that people have various masks in relation to their social roles, and similarly they act in a way they wish to project their identity in their online interactions. As DVC lacks embodiment and interaction is limited to the online context, there are fewer cues to suggest what is behind the constructed identity projected through discourse.

Therefore, you get to know a person only in as much as s/he projects her/himself into the restricted perspective available in the mediated interaction.

(interviews)

Deniz: In the virtual world, everything is rose pink ... tries to show good sides ... a new style in each conference, thinks how should I be this time, dresses well ... but it is flat, simple talk, you can't understand any bad sides, if there are, in the conference

Ali: Because people have masks ... Thus, people show themselves in their best state online. ... They don't show their real face. In the end it is a window in front of you, like the theatre stage. As soon as s/he enters the stage, s/he takes on the role; you don't know what is and is not behind in the backstage.

Zeynep: ... I might believe I know him/her but I cannot know how much s/he shows her/himself or how much keeps for her/himself ... in the classroom of course you can ... you share the same environment or spend longer time together, you see even the smallest gesture ... the smallest gesture, something s/he says, what s/he thinks about a topic.

Second, participants' comments implied a difference between offline (real) and online identity in terms of 'who you are is what you say' as opposed to 'who you are is what you do'.

(interview)

Nil: ... I don't know, maybe what she told me wasn't true; I mean we didn't live or experience anything to believe her, she told me and I listened. Of course it felt like true from like her face but I don't know how much they were true.

Deniz: ... because in real life you live with the person, you share the same environment, you have a situation and experience different things

Osman: You see each other on the webcam, a year, two years, you're very close, you talk 3 hours on webcam every day. Would that be enough? It wouldn't, you'd want to be together, you'd want to do things together. How long can you talk on the webcam, it's not just to see the face, our lives are composed of experiences. Here, for example, we look at each other, the coffee adds flavour. You have to live these things. People connect online, but one day they meet up. Why do they meet up, they want to do things together. How long can you just see the person on the camera.

It is worth noting here that identity creation may be different in other online contexts, such as networking sites where you have more tools to project your identity (such as posting a video) as well as interactions with other people (for example, collaborative writing with a concrete outcome).

Trust

Trust is the basis for all sorts of social relationships. However, it is not straightforward and has several dimensions or levels. When describing how much they trusted their partner, participants mentioned varying levels. For example, Defne mentioned having 'not a very deep' trust, but enough to convince her that Hale would understand her when she shared something. Similarly, while after the first session Eda said she was not sure how much she could trust the new acquaintance, she said she could entrust him something if needed. Likewise, when asked if it was important to trust people online, Osman said, "Trust, but for what? There are many levels of trust".

There was a clear distinction between the level of trust necessary in face-to-face encounters as opposed to online relationships. Participants thought trust was more

important but at the same more difficult to sustain online. For instance, Emre said in his interview, "Trust is more important online because people could have different agendas, it is important that you trust your friend and say your opinions freely". Moreover, most participants were very sceptical about trust in online relationships. Osman said he would not trust anyone even if he had been communicating with someone for 5 years online, and similarly Ali reported in his post-task questionnaire that he could trust Eda a little bit, and would need to "share" the same physical environment to trust her "as a close friend".

There was also a distinction between trust required for relationships in personal life and required for this kind of activity where participants sustain the relationship for a mutual purpose (such as participation in the research or to develop language skills). For example, Ali stated that trust was not very important for the present study, but it would have been if he were to continue his friendship with Eda. Zeynep, on the other hand, mentioned one of her friends who did not want to join in the study because video communication was involved, reasons of which she did not elaborate. Zeynep said she could trust people very easily, but if there was a problem online, she would simply "cut off the relationship". Therefore, perhaps trust was less necessary in an online study like this due to the ease of avoiding contact than it would be in face-to-face interactions. At this point, it is also important to note that, in the present study, trust was also assured by the researcher through the study set-up.

Some participants lacked trust in online relationships, perhaps because they believed it was easier to lie online. For example, Deniz thought because it was a "virtual environment", people would feel more comfortable to lie and he believed that the virtual was not 'realistic'. Hale was also very sceptical of how much of what people say online was true.

(interview)

Hale: I can't say [I know her] because how much can you know someone you met online anyway.

M: Why?

Hale: You're not together all the time, you don't know the person, you just hear the voice, see from the webcam ... S/he can make up anything as s/he pleases. I mean most people do the same online, they say I'm at this place, but in fact they are somewhere else. To be honest, I did that too.

While participants (such as Zeynep) believed facial expressions, gestures and body language tell a lot about the person which cannot be controlled and which reveals the true self, the DVC set-up with webcam and microphone was not always sufficient to transmit the nonverbal behaviour required. Emre and Deniz discussed the partial visibility of the face which was available through the narrow perspective of the camera and which was sometimes distorted or blurred due to connection problems. On the other hand, Hale underlined the lack of eye-contact in DVC which was one of the main indicators of honesty in face-to-face interactions. Deniz was also quite confident in face-to-face encounters that he could understand what the intentions of the people were 'by looking into their eyes'.

Most participants agreed that trust, self-disclosure and intimacy were related. For example, for Hale, you could tell more private things to a person that you trust and could be more intimate. Defne asserted the view that she could feel trust online when she felt the person was behaving intimately and naturally and avoiding artificiality. While Deniz thought Zeynep trusted him because she told him about her personal life (boyfriend) without hesitating, Emre stated that he tried to show Osman that he trusted him by expressing his emotions and talking about his experiences. Self-disclosure was also a sign of trust for Osman, who indicated another element which affects intimacy and trust: time. In his comments in the post-task questionnaire following session four he wrote, "I

find him more intimate as I get to know his characteristics but I can't trust him as a close friend, after all we only met four times, half an hour each". Thus, for him, although getting to know the person might increase feelings of intimacy, trust needed more time to develop.

On the other hand, Hale mentioned another issue related to trust online. She said she would not send her pictures to people she did not know because she did not trust them and she was aware that her picture could be edited. She also said she would approach DVC tools which could record the session with caution.

Before I move on to the issue of immersiveness, I note that not all participants fully trusted even their face-to-face friends. Several of them (Zeynep, Nil, Filiz, Hale, Defne, Emre, Osman, Ali) mentioned that they did not trust people easily and that sometimes they could not trust their friends or people they had known for years. I also provide a network view for trust (Figure 15) which shows all the themes that are relevant to issues of online trust, with major themes being self-disclosure/emotions, chronemics, cyberspace/online communication, get to know, smile and feel close/warm/intimate.

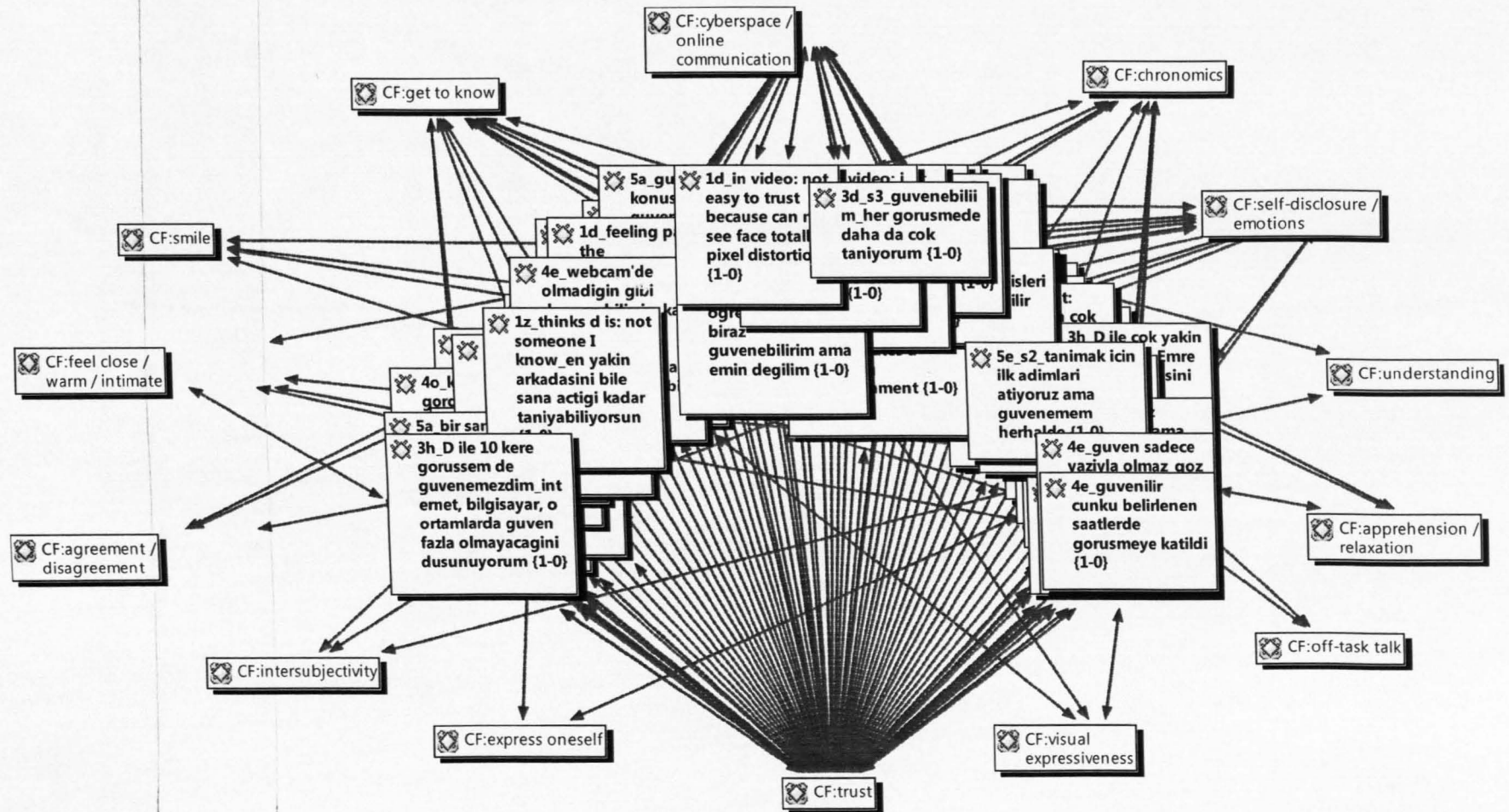


Figure 15 Network view: Trust

Immersiveness

Another issue that emerged under the category online communication was related to the extent to which participants felt their interaction was mediated. With few exceptions, they were generally aware of the mediated interaction and that they were communicating at a distance using computer technologies. For example, Ali, in his interview, said, "... I mean there is always a glass between you. I am always aware of it, the glass cannot disappear, it's not possible". Defne also commented on the distance created by the technology in terms of constant awareness of the physical distance. Osman, on the other hand, provided a psychological account in relation to the attitude towards the online relationship which for him was only established for a limited period of time for the study.

(interviews)

M: What do you think is the difference?

Defne: Well, first psychologically you keep it in mind that s/he is distant; s/he is somewhere away from you. There is some communication but the communication is only via technology, but when you are face-to-face you know the person is with or next to you and that makes you feel some kind of closeness.

M: Did you ever feel you were in the same room?

Osman: No, come on. I felt very different, very distant, we won't see each other at the end of the session, and we will never see each other again at the end of the fourth session.

The factors which evoked feelings of distance in the DVC environment included external distractions such as seeing other people move in the background, technological problems like echo in sound or distortions in the video image as well as personal worries about completing the study properly or embarrassment about using foreign language.

All participants who were online in an internet café for the sessions complained about the distractions in the immediate physical environment. For example, Zeynep reported in the final questionnaire that it distracted her to see much of the background as she tended to watch people passing behind. In the interview, when asked if she ever forgot that they were distant, she jokingly mentioned that she could not because those people passing in the background could even intervene and wave at the camera. In their last session with Deniz, one of the boys sitting behind him stared at his screen for a while which was visible to Zeynep, and Deniz had to interrupt the session, get up and ask him not to look at his screen. Throughout the sessions, Zeynep also tried to keep her voice low as she was embarrassed of speaking in English, she said she felt people's eyes on her as they were not used to other people speaking in English. Other complaints about the distractions in the immediate physical environment were uncomfortable context (Deniz); other boys in the café making too much noise (Emre); people interrupting the partner or moving behind his camera (Eda); trying to keep voices down so as not to disturb friends next door in the dormitory (Defne); and friends asking for things, phone calls and people at the door at home (Hale). Osman was able to feel Emre's uneasiness at being in the internet café and acknowledged his discomfort, comparing it to his feelings when he chatted online in a café; and Eda said if she had been at an internet café, she would not have been able to talk in English and laugh as freely as she did at home because the owners of the cafés were usually male and might perceive laughter as inappropriate or speaking in English as showing off.

Regarding technological problems, participants were aware of the computer interface most of the time, especially when the video image was distorted, when video, audio or the whole connection was lost, as well as when an audio echo occurred. For example, in the interview Defne said she might have forgotten about the interface, but interruptions in the video image reminded her that it was a DVC session.

Participants sometimes felt distracted due to other worries such as making it in time to the dormitory after the session (Zeynep); thinking about where to place the camera and microphone to ensure good visibility and audio quality (Defne); hoping that the connection would not be lost (Hale whose connection was not stable); and worries about being a good research participant (Nil), which may have been triggered by my own worries and messages in text-chat to participants asking if everything was okay.

(interview)

M: Did you ever not feel the computer interface at all, have moments when you forgot that you were talking online?

Nil: No, I was checking if I clicked on the record button to see if there was anything wrong, I mean I think worry about any mishap made me feel like that. I mean as I worried about finishing it without any problems I always felt we were in front of the computer. Also you were sending us things every now and then, I think, like in the beginning how is it going and such, I mean I felt that we were in front of the computer.

At another level, Zeynep and Filiz mentioned that, in addition to external factors like background noise, lack of touch also prevented them from feeling as if they were in the same room with their partners. Moreover, Filiz also felt the absence of supporting verbal deictics with her gestures.

(interview)

Filiz: If I compare to a friend sitting next to me, we would say look I wrote this, well I couldn't do it here, what did you do, I would show things, touch, can I do these online well? It's like sometimes children want to touch something on TV and go touch the screen. Then you say, I wish this glass was not there and I could show well, feels as if it would be more effective.

Although participants mainly felt distant and were aware of the computer interface, there were exceptions. These included when drawing a room for both of them to share on paper or on an online whiteboard, showing family members on hard-copy pictures, and talking about something personal or interesting.

Deniz and Nil felt as if they were in the same room when talking about their boy/girlfriends (the former) and family members (the latter). While Zeynep stated she never felt as if they were in the same room due to external and technological factors, Filiz felt as if they were talking face-to-face when she was showing pictures of her family, keeping the picture close to camera and pointing to family members “as if she [Nil] was in front of” her. Filiz was also less aware of the interface when they were talking off-task about the lessons as she was not focused on the screen anymore “as if the computer was a person”. Hence, pointing, showing, relaxed posture and free gaze helped Filiz forget about the physical distance. In case 3, both Defne and Hale felt as if they were together in the same room when drawing a room online on the whiteboard and discussing where to place each item, which Hale described as “for example, I said I’m drawing the TV here, you draw that there. I mean we were in the same room, our pens were in the same place”.

While the online whiteboard application was a virtual space which brought the participants together and allowed them to draw the room collaboratively in Case 3, it did not work well in Case 4. Towards the end, they no longer could see what the other was drawing simultaneously. Misunderstandings in task completion (Osman wanted Emre to write descriptions in full sentences, whereas Emre only wrote the names of the furniture) also created some tensions between the pair and Osman was not satisfied with the level of language produced. They both reported that drawing the room online was the worst they experienced in all sessions.

On the other hand, Ali said he did not feel as if they were talking in the same room, but that he forgot about the interface when they felt involved and were talking about topics of interest to him.

(interview)

M: Did you ever not notice the computer interface?

Ali: No, I didn't. Maybe when I was really involved, like when talking about myself or listening to the other. For example, maybe when I was talking about [name of the city where his university was]. I felt like that then, yes.

In this section, I have explored issues around participants' beliefs about online communication in three sections: cyberspace and online communication, trust and immersiveness. Here I summarise the main arguments.

First, technological glitches in sound and video, such as audio and video delays, pixel distortions and echo interrupted the flow of the interaction creating uneasiness especially from the point of a language learner who is yet to become proficient and confident.

Second, these technical challenges also prevented complete immersiveness, that is, participants were most of the time aware of the interface. Exceptions included drawing rooms on an online whiteboard, showing pictures of family members and conversations of personal interest. Other factors that reminded participants of the mediated interaction were external distractions as well as personal worries.

Third, restricted temporal and visual field in DVC caused doubt as to how genuine the projected identities and interactions were. Some participants likened DVC to a theatre stage where interlocutors enact their roles, and explored its connotations for issues of trust. Others emphasised the ease of establishing and breaking relationships online, in

which case trust might lose its importance. Although participants believed that trust would increase in time with increased contact and opportunities to know each other, for some trust building needed more time and usually face-to-face contact. Moreover, participants also speculated on the amount of trust that would be required for their personal online relationships and for purposeful language learning interactions, concluding that the latter would require less trust.

6.4.3 *Foreign Language*

In this section, I explore three areas regarding the influence of communication via FL. These are code-switching, perceived FL development and language learner frustration.

Code-switching

As all participants' native language was Turkish, it was not surprising that they would sometimes rely on their first language. However, against my expectations, code-switching was minimal. Participants stated that they fell back on their native language:

- when they could not explain or express themselves in FL (Deniz, Ali),
- to compensate for unknown FL words when stuck (Zeynep),
- for greetings to create trust, intimacy and warmth (Emre),
- unconsciously (as Osman felt that the conscious use of L1 might have interrupted the flow and that it would have been difficult to resume using English),
- to avoid feeling restricted to using FL and to facilitate relaxation (Eda).

(interview)

M: Why do you think he was fun to be with?

Eda: We always laughed. For instance, he's not a person who makes you nervous or tense. First I thought my partner would speak English at all times, I said ah, it'll be

boring. ... Then I realised he wasn't too strict, for example, when he couldn't find a way to express in English he uses Turkish. Also he smiles a lot, we always laughed.

Perceived FL development

All participants agreed that the online interactions via Desktop Video Conferencing (DVC) set-up were very good for linguistic improvement in general; and in particular to develop speaking skills (Deniz, Nil, Eda); fluency (Deniz, Emre, Osman); pronunciation (Osman); vocabulary (Eda); and to learn from each other (Deniz). In the post-task questionnaire following the last session, comparing DVC with classroom FL learning, Eda commented that language use and development via DVC was similar to classroom interaction.

(post-task questionnaire)

Eda: When people ask me "How can I learn English best?" I used to say "you can only learn it properly in class", but now I think this method also facilitates improvement. The only difference from the class is that this is online. Otherwise, we also communicate with our friends like this in class. I mean we ask questions and try to understand.

For some participants (Filiz, Nil, Zeynep, Osman, Eda) the study was a rare opportunity to practise speaking English. While Filiz said (interview) she was always looking for opportunities to practise and develop her speaking skills, Nil mentioned (interview) that she had had almost no chance to develop her speaking skills and that this was the main motive for her participation. Filiz and Osman also reported that the study was a good out-of-class practice opportunity.

(post-task questionnaire)

Filiz: it is really useful for learning something because I remember some words I

haven't used and also good for practice because I can't find people to talk in English during holidays or outside school. (student's own English)

More specifically, participants valued the opportunity to self-assess and improve their English by watching the recordings of their sessions (Deniz, Nil, Emre, Eda) "without the need for anyone else to correct like in class and make [them] feel incompetent" (Eda, post-task questionnaire). Both Eda and Nil valued the stress-free environment which allowed speaking without worrying about making mistakes, whilst Emre and Deniz said they found a chance to compare their language levels with others and thus assess themselves.

In order to improve his English, Deniz's strategies included watching the recording and noticing his mistakes, as well as looking up and preparing useful vocabulary for the task before the sessions.

(interview)

Deniz: In order to improve myself, I noticed my problems, then I watched the session three or four times, three times 45 minutes, I re-watched for 135 minutes to see my mistakes, I paid more attention the next session, I tried to speak more fluently.

Deniz: Before we start I look at the task and quickly download related vocabulary off the internet, I copy them aside, I try to use them when speaking, at least for not to be stuck.

Filiz and Eda mentioned how their pronunciation improved by noticing their own mistakes or differences with the partner.

(interview)

Filiz: Her pronunciation of some words made me think, do I also pronounce this word like that? I wonder which is correct, then when we finish I check the dictionary to see which is correct, mine or hers?

(interview)

Eda: Sometimes there are mispronounced words, I also mispronounced some words although I knew the correct pronunciation, I won't forget the correct ones of those again.

Compared to classroom practice, Filiz said she paid more attention to her pronunciation while Nil and Hale forced themselves to speak English more than they did in class. However, apart from Osman, Filiz and Zeynep who mentioned learning a few words, participants could not name anything new that they had learnt during the sessions. Still, as stated above, they all believed their speaking skills had improved, mostly in terms of fluency and pronunciation. The study also developed (Nil, Ali, Deniz, Nil, Defne, Filiz) or confirmed (Zeynep, Osman, Eda, Hale) their confidence in their foreign language skills.

(post-task questionnaire following session 1)

Ali: This was my first session. Contrary to my expectation it was very successful. I regained my confidence in speaking and I started to like speaking English, I look forward to the next session ☺

Language learner frustration

Some participants reported uneasiness when they could not recall a word (Filiz, Emre) and could not understand their partner (Defne). Others (Hale, Ali, and Deniz) mentioned the difficulties in expressing themselves. Hale said she tried to be herself and make jokes as she normally would, but she thought she and her partner were quieter due to speaking

in English. Ali, on the other hand, reflected on a bad speaking experience in class when he could not get what he meant across and reported that he switched to Turkish in his interactions with Eda when he felt he could not communicate his thoughts, perhaps to avoid a similar disappointment.

Nil and Osman mentioned they would have benefited more if they could have interacted with someone who spoke better English. Similarly, Osman conveyed his discontent by saying that they were using too basic linguistic structures to communicate. In contrast, Emre (his partner) thought Osman was better at speaking, therefore he allowed Osman to take and keep the floor more than himself.

These findings show how crucial it is to match pairs in terms of FL levels as well as negotiating participant roles and expectations beforehand so that students are prepared to deal with frustration, e.g. through affective and communication strategies.

6.4.4 Apprehension and relaxation

Here I explore participants' comments in relation to their feelings of apprehension and relaxation. There are seven major findings:

1. There was a two-way relationship between feelings of apprehension and relaxation, and foreign language use.
2. Feelings of relaxation and apprehension were mutual.
3. Smiles might indicate a warmer, more intimate and more relaxed relationship.
4. A warm and intimate relationship might increase relaxation.
5. Off-task talk might indicate and could create a relaxed interaction.
6. Time: The more interaction, the more familiarity; the more relaxation, the less apprehension.
7. Apprehension and relaxation could be projected and created by gestures and posture.

8. Online mediated interaction might both increase and decrease anxiety.

Other issues put forward by participants in relation to apprehension and relaxation include compliments, humour, greetings, evaluation, attitude towards task completion, and timidity.

1. Two-way relationship between feelings of apprehension and relaxation, and foreign language use

Participants stated both the uneasiness they felt due to their apprehension about interacting in the foreign language (English) and also the influence of their worries on how well they could perform in English. For example, Filiz felt she needed to pay more attention to her pronunciation, whereas if she was only writing she would have felt more relaxed. She also mentioned she was worried about whether they would be able to speak fluently and remember vocabulary. Likewise, Defne also felt that she would not be able to speak before they started or use “even the tenses” correctly (interview) in her first session with Hale. While Deniz said he was relaxed throughout his interactions, the only source of uneasiness was speaking in English. His partner, Zeynep, on the other hand, said she was always relaxed because she was confident about her English. Eda acknowledged some anxiety and that sometimes she was not able to express herself well, but she still felt relaxed. However, her partner Ali was quite worried about speaking English and said he was scared at first, thinking his partner’s language level would be above his own. He then relaxed after the first session, feeling they were equal. Like Ali, Filiz and Nil also stated they felt more relaxed as they realized they had similar English levels. Nil compared this to her classroom interactions where she mainly interacts with the teacher and found the DVC environment more relaxed for interacting both with other learners and at her own leisure.

(interview)

Nil: There is a more relaxed environment here; you are at home first of all more relaxed, you're doing something on the computer at your own leisure, also the person you're talking to, I mean when you talk at school with a teacher of course a bit more, while you think much more about what you say, when you think you're speaking to a person at your own level you can be more relaxed, I think it was more relaxed than the school.

Nil suggested a potential link between relaxation, accuracy and fluency. She thought Filiz (her partner) was relaxed because she was speaking fluently, without hesitations, whilst she wanted to produce grammatically correct sentences.

(interview)

Nil: While I was hesitating more at the beginning she was talking more fluently I mean I thought she was relaxed because of that ... for example, I noticed she made mistakes, I could understand her at the time but I didn't warn her I assumed that it perhaps happens in daily life talk and I didn't warn her. Thus she didn't think about it much, maybe she had more practice, I haven't had much speaking practice, I try to be grammatically correct, she was more relaxed.

Also mentioned in participants' comments was the native language of their partner: being able to speak in Turkish, if needed, helped them relax, too.

(post-task questionnaire following session 4)

Ali: Being able to speak in English with a Turkish friend made me feel relaxed because sometimes you are stuck, sometimes you can't express yourself, then you use your shared native language, what could be better than this 😊

While lack of confidence in linguistic ability caused worries and anxiety, participants also reported linguistic challenges they faced when worried or excited, such as the inability to recall vocabulary (Filiz, Eda), or the tendency to make grammatical mistakes (Defne) and lose fluency (Ali).

2. Mutual feelings of relaxation and apprehension

Participants generally agreed that feelings of relaxation and apprehension were mutual and mirrored. For example, Hale commented in her final questionnaire that speaking in a nervous tone could make the partner nervous, too. Likewise, Nil reported at the end of session 3 that she was calm because her partner was also relaxed and calm. This view was also echoed by Deniz, Zeynep, Eda and Emre.

(interview)

Emre: Osman was relaxed, I was then relaxed. Or I was relaxed and this was reflected on him. The interaction was really nice, I can say that. Like two friends.

Deniz expressed a different view that anxiety should be mirrored, partners should be empathetic and their anxieties should be of similar levels; if one is anxious while the other is confident, that could ruin the relationship.

(interview)

Deniz: Anxiety, well in the beginning if the other person does not understand it, I mean the other's point of view is also important, if both parties are excited they can understand each other but if one of them is excited the other is confident, and showing off or behaving a bit priggish this would ruin the relationship.

3. Indication of a warmer, more intimate and more relaxed relationship by smiles

Smiles were important in breaking the ice (Deniz), feeling comfortable (Filiz) and being more intimate (Eda).

(interview)

Eda: Both from jokes and he is cheerful. He doesn't make me feel bored, I hesitate and think about what to say, then he smiles, this relaxes me.

4. Increasing relaxation by a warm and intimate relationship

Emre said he tried to increase warmth and intimacy to help Osman feel more relaxed. Similarly, Deniz and Defne also thought having a warm and intimate relationship increased feelings of relaxation.

(interview)

Emre: By smiling I tried to be relaxed, as if we had met before, talked before, I tried to show that. To help him feel relaxed, I tried to increase level of warmth, intimacy. Most people can't communicate like this, they are very cold, can't get on well. But I didn't want it to be like that, I believe I did my best to avoid that. Most of our characteristics were parallel; he behaved the same way as I did. We were free, relaxed.

5. Indicating and creating a relaxed interaction via off-task talk

Participants mentioned that when they felt relaxed they could easily talk about topics which were not prescribed by the task. For example, this is what Nil reported in her post-task questionnaire following session 2, "I was a bit excited but was generally relaxed. There was no reason for me to be tense ... for example, after we did what we had to we could easily talk about any other topic we wanted, I was very relaxed about that. ... we laughed and had fun and talked about daily life topics other than the task".

Off-task talk also had an effect on how relaxed and warm they felt. For instance, in her interview when asked if going off-task was important, Eda stated that it was, because "when we talk about the task it is as if very planned, I mean when we talk like this we have a warmer context. If we don't go off-task, we'd be as if compelled to do only that, thus it is more relaxed like this".

6. Increased interaction, familiarity, relaxation, and decreased apprehension over time

Most participants agreed that over time they got to know their partner more and with this familiarity came relaxation. For example, according to Defne, when she made mistakes in the first session she felt as if she would not be able to talk. However, upon reflection she thought it was normal because she did not know her partner or how to react to her. Once she got used to the interaction she felt more relaxed and at least did not rush to produce sentences

Likewise, intimacy might also increase over time with increased familiarity. When asked if anything changed over time, Ali in his interview said nothing much changed and they went on as they had started, except that "towards the end intimacy increases a bit more as you talk, and you are a bit more relaxed".

Also participants expressed increased relaxation and reduced worry about the interactions as they got used to their partner and gained more confidence in speaking. Adjusting to the medium perhaps played a role in feeling relaxed, too. These views are exemplified below:

Getting used to partner: (post-task questionnaire following session 2)

Osman: We did our second session with Emre today; it was quite nice, naturally we weren't nervous like in the first session due to new acquaintance and inexperience.

Thus, we both spoke more relaxed.

Gaining confidence in FL: (post-task questionnaire following session 1)

Emre: It was a very nice conversation. First I was afraid that I won't be able to speak well but I got used to it in time and warbled like a nightingale 😊

Adjusting to the medium: (interview)

Defne: First I need to feel relaxed in front of the camera, if I can get rid of that nervousness I can speak more relaxed. The conversation would be more relaxed if I can speak as if face-to-face and not in front of the camera.

Moreover, Zeynep, Defne and Hale believed that feeling relaxed in the sessions helped them complete the tasks easily. However, it is important to note that there may not be a direct positive relationship between time spent together and intimacy or anxiety. Other factors in the relationship should be considered. For example, while Case 2 got used to each other and felt closer as they had more sessions, Case 1 got very close in the first session, but towards the end of their third session, tensions surfaced especially in terms of power and flirtatious behaviour. The same might be true for feelings of apprehension due to foreign language use. While anxiety in the subsequent sessions might have been reduced if the participant had been satisfied about his/her use of English during the session (Ali), the opposite might have induced very negative feelings and might have perhaps negatively affected feelings in further sessions (Deniz).

(post-task questionnaire following session 1)

Ali: This session was very important for me because it was my first and would be a reference to my further English conversations. For example, at first I couldn't say anything except yes/no, but in the time I even started to make jokes 😊

(post-task questionnaire following session 2)

Deniz: My receptors were not quite open during the session, that's why it wasn't like what I wanted but I did my best.

7. Projecting and creating apprehension and relaxation by gestures and posture

Participants could both understand if their partner was nervous or relaxed and could consciously project their relaxation via their posture and gestures. Nil said she could see her partner's smile and relaxed posture when sitting. When watching her recording, she thought she "looked" more nervous, tense and timid. Similarly, Defne thought her partner Hale was relaxed because she sat on the bed leaning towards the wall with her laptop on her lap.

On the other hand, Filiz also mentioned her awareness of how she projected herself and said she tried to show she was relaxed by not looking directly into the camera and using gestures. Likewise, Emre paid attention to how Osman was sitting (leaning back in his chair) and then consciously altered his posture to create a relaxed interaction.

(interview)

Emre: For example, Osman was talking relaxed, leaning back in his chair, as if we were at a café and he was in front of me ... At first I was sitting upright like this, holding the microphone, with a formality, as if talking to prime minister. Then I looked at him, ah he was as if my friend, then I thought I can be relaxed too, after all we are friends, we'll share something and talk. Then it all went well.

Participants also made numerous comments about the relationship between the pair that participated in the pilot study when watching a video clip of their interaction. These comments indicated that their judgements were based on the interactants' states of apprehension and relaxation by looking at how they used their gestures, the way they moved and used their body as well as how fluent they were or their tone of voice.

8. Online mediated interaction and anxiety

Participants had varying views about how they felt in the multimodal online communication. For example, Eda and Defne reported uneasiness with using the camera. Eda's views were quite extreme; in her final questionnaire she reported as follows, "I can't look at the camera and when somebody directly looks at the camera while speaking with me, I feel very anxious, sometimes nervous as if s/he is watching me secretly, without my permission. Even if I avert my eyes from the screen, I get mad, irritated" (student's own English). Defne expressed a moderate and perhaps widely shared view, "Not everyone is used to the camera, especially if you haven't used it before you feel under scrutiny under the camera, like Big Brother, you don't know what to do, where to keep your hands or body".

On the other hand, online interaction might also decrease anxiety and nervousness because you know your partner is away (distant) and you only see his/her image (Filiz). Perhaps this is related to the availability to log off anytime you feel uneasy about the interaction. Online interaction in pairs may also remove any anxiety or worry caused by peer pressure and the need to produce "correct" language like in the classroom.

(post-task questionnaire)

Nil: Here I wasn't worried about making mistakes as much as I would in class. This helps us stay calm during the interaction ... for example, I wouldn't be as relaxed in class as I was in this conversation when answering my friend's questions, I would be worried about providing the best answer.

Participants also suggested that compliments (Zeynep), humour (Ali, Eda), and greetings (Defne) helped them relax. While Hale thought challenges might include shyness and an inability to speak freely, Deniz said he would have felt tenser if he knew their interaction would be graded. Attitude towards task completion might also affect participants feeling

worried or relaxed. Osman said he did not exaggerate the importance of the tasks and only looked at them briefly 10 minutes before the session, while Filiz prepared for the task in the first session which helped her relax as she assured herself that all would go well because she was already prepared.

Finally, a network view for apprehension and relaxation (Figure 16) indicates the complexity of its relations with the other themes explored in this study with quite high density of links to FL, posture/webcam, visual expressiveness and smile.

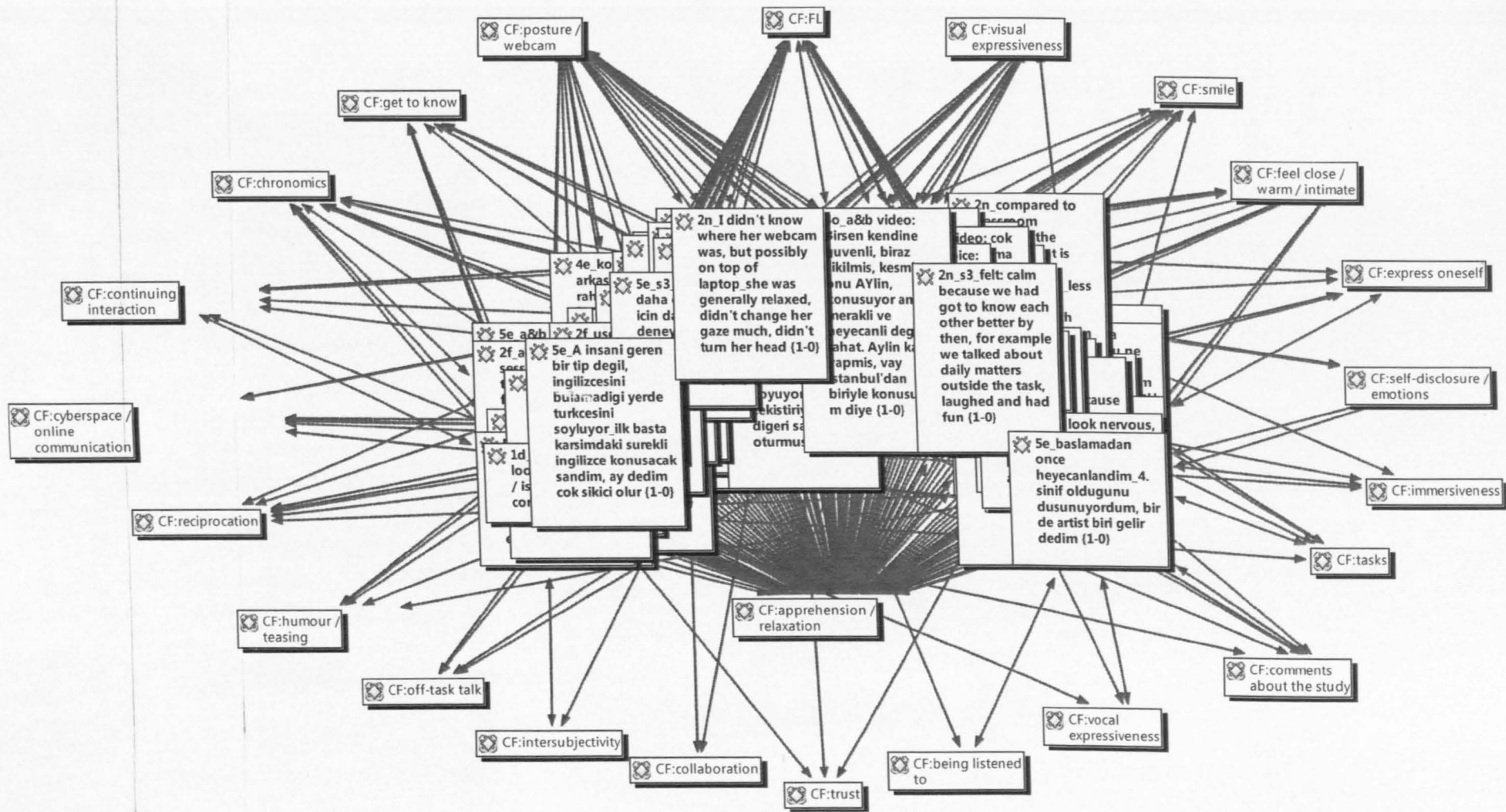


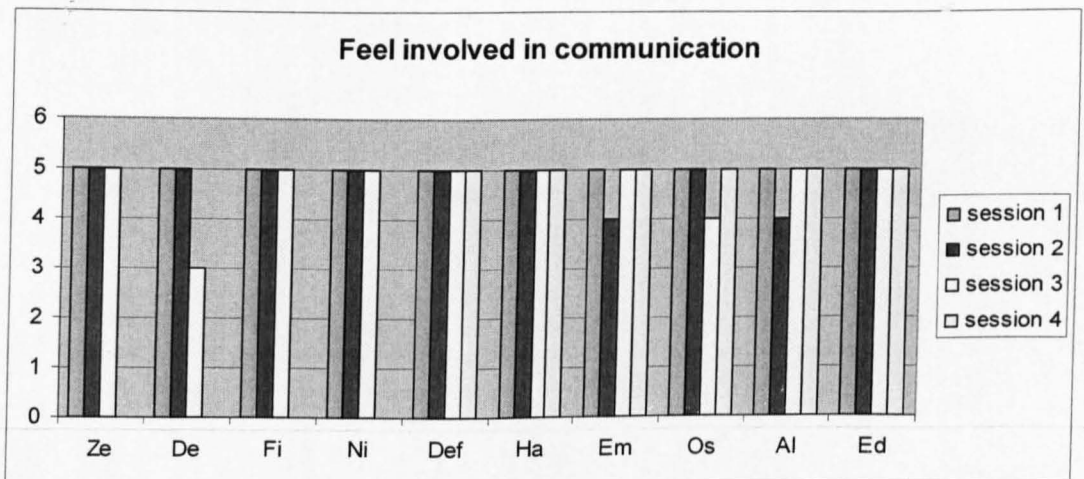
Figure 16 Network view: Apprehension / relaxation

6.5 Quantitative results

Although the study belonged to a qualitative tradition, for description and triangulation purposes, some quantitative data was also collected in post-task and final questionnaires (see section 4.4.4 for details of the instruments). I used some of the quantitative data in case analyses in Chapter 5. For cross-case analysis, however, quantitative results proved to be an unproductive approach. There could be several reasons to this. First, the number of participants (10) was perhaps too low to reveal overall patterns. Second, in an attempt to be good research participants, they could have rated the statements highly. Third, the quantitative results highlighted the individual variation and it was only possible to interpret them in relation to the qualitative data.

For instance, post-task results (Table 10) indicate generally high involvement levels from all participants obtained on a Likert scale of 1 to 5, where 1 was totally disagree and 5 was totally agree.

Table 10 Involvement in communication across DVC sessions



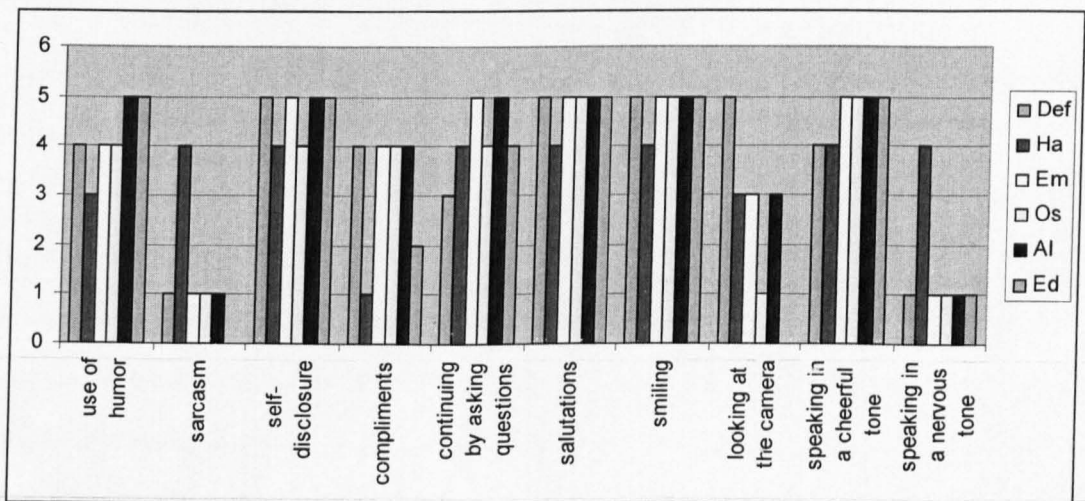
Slightly lower involvement levels as expressed by some participants (Deniz in session 3: 3, Emre in session 2: 4, Osman in session 3: 4, and Ali in session 2: 4) could not be

interpreted by looking at the numerical data only. Moreover, qualitative data which could explain the results suggested stronger evaluations than the numbers reveal. For example, Demir expressed a stronger frustration in session 3 at not being able to ask as many questions as her partner and express himself in English. Likewise, Osman stated stronger disappointment about his partner Emre when they were drawing and describing their rooms online than the numerical 4 suggests here.

Therefore, I do not include further quantitative data obtained from post-task questionnaires for reasons of validity and explanatory power. However, it is important to note that as part of the research experience, the statements for quantitative evaluation perhaps stimulated reflection on certain aspects of their interactions and influenced participants' behaviour in subsequent sessions.

Finally, illustrative data obtained from the final questionnaire, where participants in Phase 2 evaluated several indicators in terms of their importance for their DVC interactions (1: not important, 5: extremely important) are shown in Table 11.

Table 11 Selected data from final questionnaire: evaluation of indicators



Although it was expected that humour, self-disclosure, salutations, smiling and speaking in a cheerful tone would get high evaluations, it was not clear why Hale would rate sarcasm and speaking in a nervous tone positively. Perhaps Hale misunderstood the rating system or evaluated the indicators as extremely important not to do them. There were no visible patterns for compliments, continuing a thread by asking questions or looking into the camera.

As with post-task questionnaires, I do not present quantitative data from the final questionnaires because they did not produce significant findings for the current study. In terms of research methods and instrument design, it is important to note that there were 52 indicators in the final questionnaire and participants evaluated each from 1 to 5 regarding their importance. This was not a very productive approach, because it did not force differentiation. It would have perhaps been much more productive if the participants had chosen the five or ten most important indicators and ranked them from most to least important.

6.6 *Three salient features*

There were three main reasons why I chose to analyse and exemplify code-switching, mode-switching, and gaze in session recordings across cases. First, they represent the linguistic and multimodal resources as well as technical and interactive challenges present in the current context. The availability of text-chat in DVC is distinct from face-to-face encounters and the availability of Turkish is specific to learner-learner interactions sharing the same native language. In terms of challenges, the DVC set-up imposes a certain manipulation and understanding of eye-contact. In addition to technical issues, such as audio and video delays and echo, unfamiliar conversational partners and lack of a language model (such as a native speaker or a teacher) differentiate the present context from classroom learner-learner interactions.

Second, these issues are within current CMC research interests. For example, Cárdenas-Claros and Isharyanti (2009) and Kötter (2003) look at code-switching, Sauro (2009) and Hampel and Stickler (in preparation) examine the use of text-chat, and Develotte et al. (2010), Lamy & Flewitt (in press) and Mondada (2006) investigate gaze. This section is not an exhaustive analysis of the data, but aims to exemplify potential analysis which is manageable within the constraints of the available timeframe of this study.

Last but not least, these three features are closely related to the development of social presence and how participants create and project their online selves. Participants make use of their native language and text-chat for clearer self-expression. Moreover, multimodal challenges such as eye-contact and audio and video delays influence the way participants maintain interaction and establish immediacy.

6.6.1 Code-switching

I presented participants' perspectives on code-switching in section 6.4.3 and I now illustrate the use of Turkish in DVC sessions across cases. Two cases (Cases 2 and 3) never switched to their native language during their DVC sessions. In these pairs, Turkish was only used during the interactions between me and the participants in text-chat before and after the DVC sessions.

There were five reasons for using Turkish in Cases 1, 4 and 5. First, Turkish was a resource for meaning making when the participants could not find an English equivalent. These expressions were usually preceded by markers such as "how can I say ...", "in Turkish we say ..." and or "in Turkish ...".

(session 1)

Ali: how can I say, *oturmak, kalmak*?

Eda: live

These words and expressions included idioms (e.g. session 1, Ali: *geçti Bor'un pazarı*) and fillers (such as *yani, valla, evet*). Sometimes Turkish words were a source of humour, occasionally with reference to cultural artefacts. For instance, when describing his dream room in session 3, Emre wanted a "*diyanet* calendar" to be put on his wall which generated laughter. Emre referred to a traditional Islamic wall calendar which is valued by older people and is a typical object in most Turkish homes, but is unusual in a teenager's dream room.

In Case 1, Zeynep frequently included Turkish words or phrases when she could not express herself in English. For each of these attempts Deniz either provided an English equivalent or reminded her not to use Turkish (such as lines 35 and 36 in Extract 5.1-2, lines 31 and 32 in Extract 5.1-5 and lines 11 and 12 in Extract 5.1-3). Hence, code-switching in this pair marked their different attitudes towards and understanding of task completion. While for Deniz, they should strive to use English at all times during their task-based DVC interactions, Zeynep had a relaxed attitude towards code-switching.

For better self-expression, sometimes code-switching (or mixing) occurred seamlessly.

For example, in the below quote, Ali explains his views on sleeping.

(session 1)

Ali: The sleeping is not required. For example, a man who lives sixty years and he pass his first twenty years err (3) twenty years, how can I say, *bos geçiriyor* (waste time), the first twenty years and the second twenty years err *ne oldum delisi olarak geçiriyor, yani gençlikti suydu buydu filan*, (trying to be aware of what happened, I mean youth, and thus and that, like), the second years pass this, and the rest of the twenty years pass with sleeping. So, the person spends his life's err *üçte biri, yasamasinin ucte birini uygkuda harcıyor* (one third, spends one third of his life in sleep). So, I think the person sleep four hours.

Second, code-switching was used as a tool to break the ice and to increase immediacy and intimacy. In Case 4, Emre thought using Turkish words in greetings which indicate closeness (such as *Emreçğim*, *dostum*, *kardeşim*) and which stimulate laughter made him develop “trust and intimacy”. For him, occasional use of native language prevented “coldness”.

(session 2, beginning)

Emre: Hi Osman! How are you?

Osman: (.) Heh *bir baslatayım kaydı da şimdi, dur dostum*. (Let me start the recording, now, wait mate.)

Emre: ((smiles))

Osman: heh (.) okay

Emre: Okay? ((smiles))

Osman: Let's start speaking English *çatır çatır* (easily)

((both smile))

Osman: err okay, how are you? ((smiles))

Emre: I'm fine and you? (.) my friend? ((smiling))

Osman: I'm fine too, thanks a lot.

Above, Osman calls Emre “*dostum*” (mate) right at the beginning, which is used between close friends. Moreover, he prefers to use an onomatopoeic Turkish phrase “*çatır çatır*” instead of using “easily”.

Third, Turkish was used during task planning and task management.

(session 3)

Ali: *Şimdi önce biz mi çiziyoruz yoksa anlatıyoruz birbirimize mi çizdiriyoruz?* (Now, are we drawing first, or do we tell and let each other draw?)

Eda: *Çizdiriyoruz dream roomları.* (We are letting each other draw dream rooms.)

Ali: *Hım, sen başla o zaman.* (Hmm, you start then.)

Es: Okay. But I can't see you.

Fourth, participants frequently code switched to solve technical problems.

(session 4)

Eda: Can you hear me this time?

Ali: *Çok derinden geliyor* (Your voice is deep)

Eda: *Hadi ya!* (Really!). is it the same?

Ali: *Sesi açınca çok gürültü geliyor, kısınca seni duyamıyorum, karmaşık bir durum var.* (When I turn up the volume, there is lots of noise, when I turn it down I can't hear you, it's a bit weird.)

Fifth, Turkish was sometimes used for face saving purposes. For instance, in session 4, following a grammatical mistake, Ali used Turkish to highlight his awareness of the mistake, which he perhaps thought was very simple. He then provided the correct form, followed by laughter.

(session 4)

Eda: You don't like listening to music, but ... isn't there any people you appreciate?

...

Ali: I don't like, *yani* (I mean), I don't interested, I don't *ay iğrenc oldu* (ah, it sucks), I am not interested.

((both laugh))

6.6.2 Mode-switching

There were three main modes in this study: text, audio and video. Overall, there was little reliance on text-chat, and audio and video were the main means of meaning making and developing social presence. In particular, Cases 2 and 4 did not use text-chat at all, except interacting with me at the beginning and/or end of the sessions.

Case 1 rarely used text-chat. The few examples included foreign singer and song names the participants recommended to each other in an attempt to provide correct spelling.

(session 3)

Zeynep: (08:42) WILD WORLD

Zeynep: (08:42) CAT STEVENS SONG

Cases 1, 3 and 5 relied on text-chat as a backup when they had connection problems in audio and video. For instance, in session 2, Hale and Defne were about to start talking about horoscopes when Hale's audio and video froze. When Defne realised the situation, she first checked audio and then tried to contact Hale in text-chat (Table 12).

Table 12 Text-chat for technical problems

Participant	Audio	Video	Text
Defne	We can look at the website		
Hale	yes, we will cheat, yes	both smile	
Defne	err (6)		
Defne	We will talk and we will try to guess them	Hale's video freezes and no audio transmission	
Defne	(4) Hale? (2)		
Defne			dont close it please
Defne			:(
Hale			can u hear me defne?
Hale			ohhh

Cases 3 and 5 also used text-chat as a back up for their collaborative writing task when the interactive whiteboard did not work.

Extract 6.6-1 You write okay

Lines	Partcp.	Audio	Video	Text
1	Hale	Let's say at first (.) err (.) we will take a tour around err (1) around some places. I write here.		
2	Hale	We take (2) a tour (6) (keystrokes)	Hale looks down (perhaps on her keyboard), her gestures indicate she is writing. Defne keeps one hand on her chin, stays stable.	Hale: we take a tour around the istanbul bogaz
3	Hale	Is it (.) okay?		
4	Defne	Okay. And we must have a breakfast on err a special place but I don't know where		
5	Hale	Next to a café near the sea we can say		
6	Defne	Okay.	Nods. Posture close to camera, downwards gaze and gestures indicate writing.	
7	Hale	You write okay. (18)	Hale notices that	Defne: we have a

			Defne is writing and stops talking.	breakfast at a cafe near sea
8	Hale	Ye:s.	Nods.	
9	Hale	Then err we will go to museums, there are so many museums in Istanbul.		

In Case 3, Defne and Hale used three modes in harmony to achieve successful task completion. In Extract 6.6-1, in lines 2 and 7 long silences do not create problems as participants can interpret the visual cues which indicate that their interlocutor is writing. These visual cues include both the participants' posture and gestures in the video image and the indicator in text-chat window when someone is typing. Screen recordings or stimulated recall sessions could be useful in further research in clarifying whether participants can pay attention to both the video image of their partner and the text-chat window simultaneously.

In Case 4, participants often used text-chat to clarify misunderstandings. For example, in session 1, Eda asked Ali what he thinks about the place he lives. Ali misunderstood "place" as play and asked Eda to repeat. Following two unsuccessful attempts, Ali asked Eda to write it on text-chat window, which clarified the meaning. Likewise, in session 2, Ali tried to guess Eda's star sign. When his guesses were incorrect, Eda gave a clue by saying it is from the "fire group". After three repetitions, Ali could still not understand the clue and asked Eda to write it.

Ali also seemed to utilise text-chat to avoid misunderstandings or feelings of embarrassment due to mispronunciation. When thinking on his own, he read from the

website and muttered aries, sagittarius and leo with non-standard pronunciation. When he needed to guess Eda's star sign, he either only wrote the name of the star sign (aquarius and sagittarius), referred to it by its sequence on the website (the second one, third one), or both pronounced and wrote the name of the star sign (aries, leo).

Participants sometimes preferred to express themselves in the video mode, such as waving to attract attention and to take the turn, showing each other pictures and accessories, or making faces or pointing to their ears to indicate that they could not hear one another. Here, I focused on the use of text-chat as it emerged in the DVC interactions. How, when and why participants utilise video in detail would be interesting to investigate in future research.

In sum, participants switched to text-chat:

- for greetings before and after the DVC call,
- to provide spelling of foreign singer and song names,
- as back up for problems in audio, video and external tools,
- to clarify and avoid misunderstandings and/or embarrassment due to mispronunciation.

6.6.3 Gaze

Here I provide my observations from the DVC recordings to illustrate the discussion on eye-contact in section 6.4.1.

Participants had different ways of utilising the webcam; manipulating gaze constantly, strategically, avoiding gaze totally and not paying special attention to gaze. In particular Nil's gaze was distinctive. She was the only participant to constantly look at the camera to

maintain eye-contact, except when they were showing each other pictures (Extract 5.2-1 and Figure 17).



a) Nil (on the left) looking at the camera, listening. Filiz (on the right) talking.



b) Nil: Can you see? (showing Filiz a picture and checking visibility on her screen which is positioned to her right)



c) Filiz: Did you see her? She is my sister. This one. (Filiz showing a picture and Nil looking at her screen to see the picture)

Figure 17 Fixed gaze

Zeynep and Eda were the two participants who stated their uneasiness with trying to establish eye-contact via webcam. Zeynep usually looked downwards when talking (Figure 18 a). Zeynep rarely looked towards the webcam to send a message, which I illustrated in Extract 5.1-2 in lines 35 and 41 (Figure 8 c and d). Eda did not manifest any strategic use of the webcam, as illustrated, for instance, in Extract 5.5-1. Although she was talking most of the time during this extract, her gaze was away from the webcam, looking downwards and around (Figure 18 b).

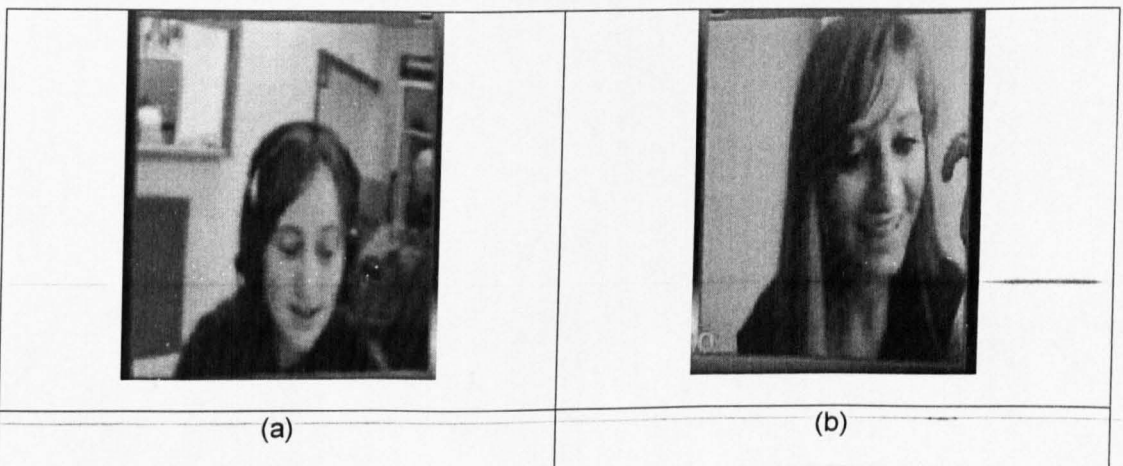


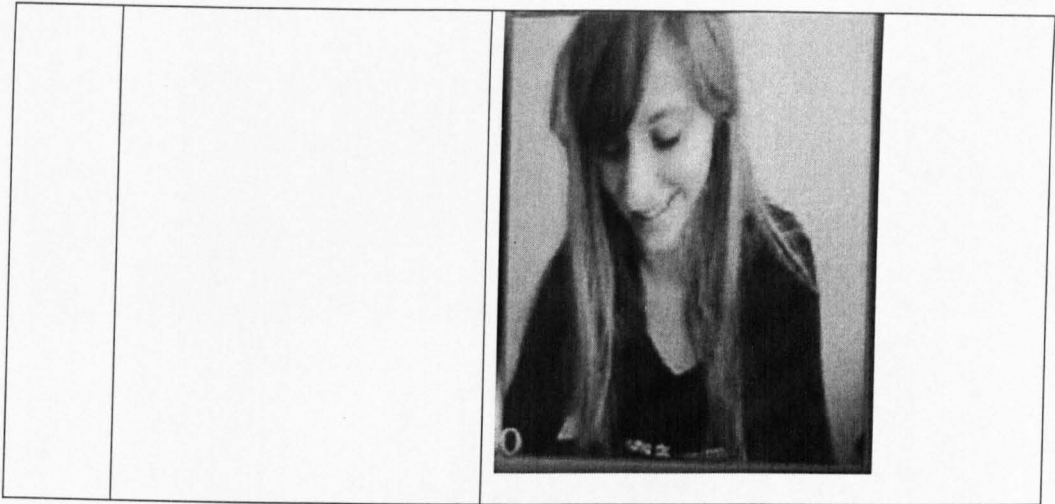


Figure 18 Avoiding gaze

Extract 6.6-2 a lot of (session 3)

Lines	Verbal	Eda's gaze
1	Ali: A lot of window	looking down on paper, drawing 
2	Eda: A lot of? ((smiles))	looking up on the screen 
3	Ali: Yes	looking down on paper



In this extract, in line 2, Eda shifts her gaze towards the screen, but not towards the webcam. However, due to the nature of the message (repeating Ali’s expression with emphasis) and the fact that she abandons her drawing task, it could be perceived as an attempt for eye-contact. Thus, in DVC, looking at the screen towards the other’s video image could replace direct eye-contact established via staring at the webcam.

In their interviews, Deniz and Ali stated that they intentionally looked at the webcam when they wanted to send a specific message. However, this was not much observable in their recordings except a few instances. I illustrate these in Figure 19.

Screenshot		Explanation
		These images are taken from Session 1. Zeynep asks Deniz if he is crying. Deniz says no and shows his eyes to Zeynep, first getting closer to the screen instinctively and then closer to the camera.





		<p>The image on the left shows Deniz's usual gaze (towards the screen). In Session 1, after adjusting his camera position, Deniz asks how he looks. Zeynep says he looks handsome and Deniz, looking at the camera, says, "okay, I'll keep it in this position" (image on the right).</p>
		<p>These images are taken from Extract 5.5-1. Although Ali's gaze is not clear, his awareness of the camera and how much is projected is evident. He makes the thumbs up gesture (left image, line 23 in extract), which appears at the bottom of his image. Shortly after that, he corrects his camera position so that more of his gestures are visible (right image, line 25 in extract).</p>

Figure 19 Strategic gaze

Other participants (Hale, Defne, Osman, Emre and Filiz) were more flexible in terms of their gaze in front of the camera. They used gaze freely, finding it more natural to look at the screen to see their partners' reactions, as well as looking around as they would when speaking to others face-to-face (Figure 20).

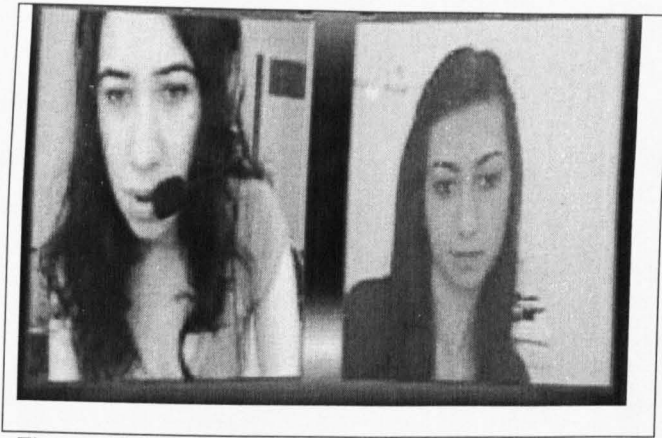


Figure 20 Free gaze

Participants sometimes directed their partners' gaze to certain objects. For example, Zeynep and Osman got up to show their heights; Zeynep and Deniz showed each other their accessories (e.g. watch, finger nails); Filiz and Nil showed each other photographs and pointed out people; and others (Hale, Defne, Emre, Osman, Eda and Ali) showed each other the room pictures they had drawn and pointed out the objects in the pictures.

As an observer, it was sometimes difficult to predict where participants' gaze was due to the position of their webcam or inclarity of the video image. For instance, Ali's video image was frequently distorted. Moreover, he had dark and small eyes which made it difficult to track his gaze in the recording (Figure 21).

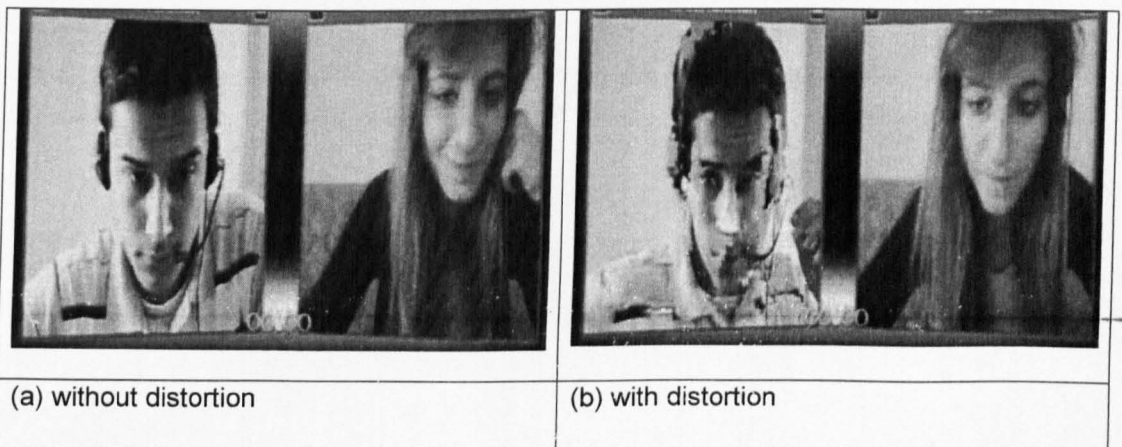


Figure 21 Gaze without and with pixel distortions

Eda's gaze was easier to follow, with a clearer video image and her big blue eyes. Yet, she was using an inbuilt camera and it was hard to distinguish her gaze due to the small shift in gaze required to alternate between the screen and the webcam.

In Case 4, video quality was not good. Moreover, Osman was wearing glasses which made it more difficult to observe his gaze (Figure 22).

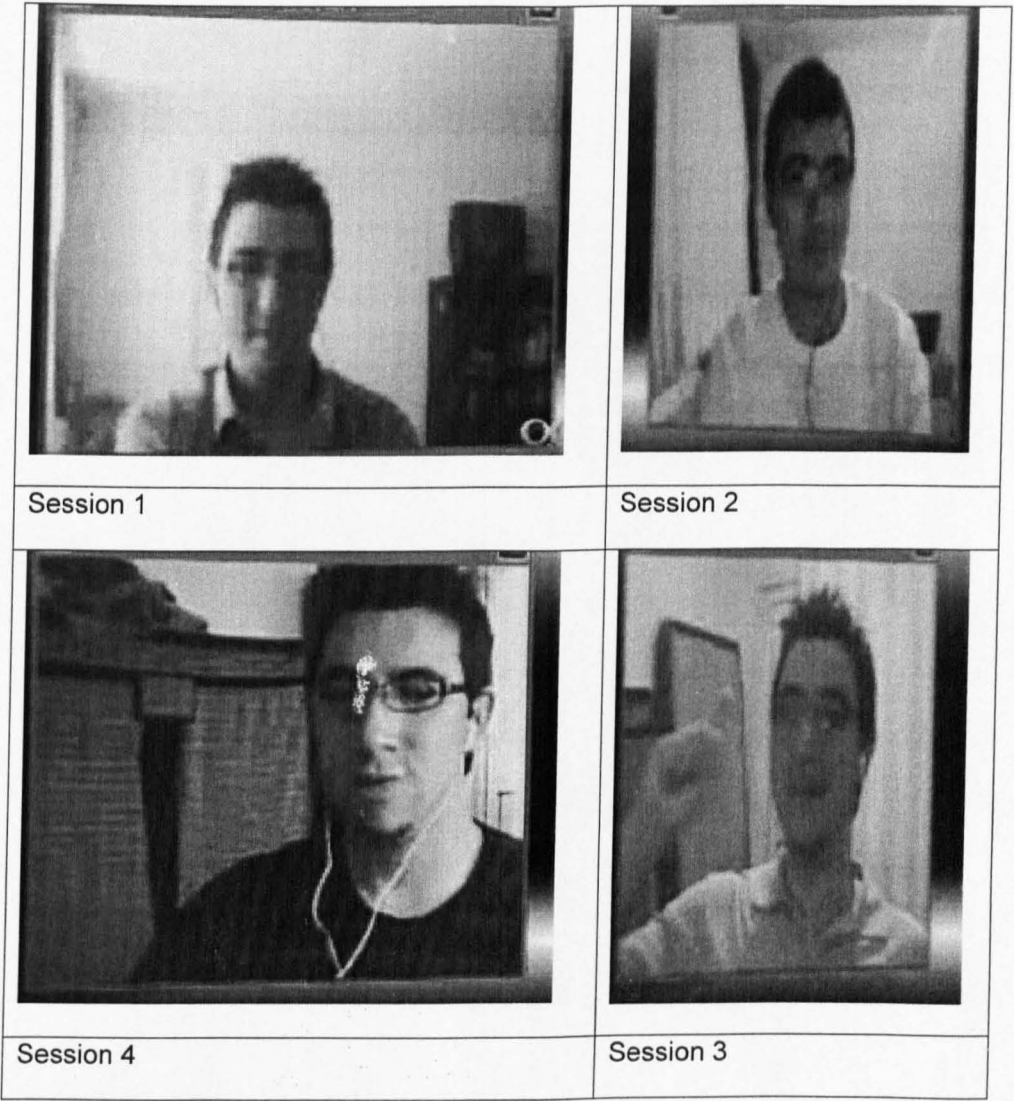


Figure 22 Gaze with glasses

6.7 *A framework to analyse social presence*

This section offers a tentative framework that lists the components of social presence in the present context of DVC and FL which were explored in this chapter (Figure 23). The framework consists of seven major categories. Those three presented in the top row (building intimacy, sustaining interaction and establishing intersubjectivity) relate to the existing categories of SP, but also include an updated list of sub-components that were reported by participants and observed in the session recordings. The three categories presented in the bottom row (multimodality, beliefs about online communication and foreign language) signify technological, psychological and linguistic features which emerged in the present study and which have been shown to influence social presence. In the centre of the framework is apprehension and relaxation. It was a core element which had links to the other existing and emerging categories. Feelings of anxiety, nervousness and relaxation were found to be induced by issues of social interaction (such as familiarity, power, common ground), conversational styles (such as amount of smiles, humour, phatics and salutations, self-disclosure), interaction patterns (such as backchannels, questions, silence), technology (such as gaze, eye-contact, posture), attitudes to online mediated interaction (such as lack of trust or ease of avoiding contact) and language medium (such as use of native language, confidence in proficiency, and accurate projection of the self).

The framework may be of interest to researchers and educators alike. Regarding future research, it breaks away from the current quantitative research tradition (of content analysis and questionnaires) and provides a qualitative exploratory holistic overview of aspects of social presence. Further research could either use the present framework as an analytical tool to analyse SP in similar contexts or explore the categories in other and/or similar contexts to validate, expand or condense the framework. As an analytical tool, the framework can be used as a whole in order to provide an overview or in parts in order to zoom in on certain aspects of the interaction. If used to guide quantitative

research, it would be an enormous task to use the whole framework for analysis due to the difficulty of specifying units of analysis and the amount of time needed to carry out the quantification. For instance, to quantify smiles, one might need to consider the length and loudness, the type (giggle, laughter, smile), the function (joy, distancing oneself from criticism, embarrassment), or the quality (genuine or artificial) of smiles. Thus, I would suggest more in-depth research for content analysis focused on certain manageable units.

Below I present the framework (Figure 23) followed by examples of each category (Table 13) in an attempt to facilitate language teachers' and learners' understanding of the concepts that make up social presence.

Building intimacy		Sustaining interaction	Establishing intersubjectivity
Smiles (warmth and sincerity)		Questions (initiation and follow-up)	Common ground
Self-disclosure (personal info and emotions)		Backchannels (including smiles)	Agreements and disagreements
Humour		Reciprocation	Vocatives
Complimenting and expressing appreciation (personal, language-related, task-related)		Listening and paying attention	Inclusive pronouns
Off-task talk		Collaboration	Phatics and salutations
Familiarity		Chronemics (pause time, time spent together)	Power
Empathy		Turn length and silence	Smiles (interactional synchrony)
Apprehension and Relaxation			
Multimodality		Beliefs about online communication	
Eye contact and gaze (oculesics)		Vocal expressiveness	Immersiveness
Visual expressiveness		Tone and pitch of voice	Trust
<i>Proxemics</i> : Body orientation, forward leaning		Fluency	Cyberspace and online communication
<i>Kinesics</i> : Smiles, head nods, gesture, facial expressions, body synchrony, interactional synchrony		Backchannelling	Foreign Language
<i>Physical appearance</i> : clothing, height, bodily relaxation, open body positions		Vocal synchrony	Code-switching
		<u>Text-chat</u> (mode-switching)	Perceived FL development
			Language learner frustration

Figure 23 A framework to analyse social presence in DVC via FL

Table 13 Examples for each category of the framework:

Building immediacy and intimacy (affective)	We have a warm, sincere and intimate relationship. We understand and know each other. We listen and value each other. We smile to create positive atmosphere.
Sustaining interaction (interactive)	Our conversation flows. We ask follow up questions, initiate and encourage talk. We provide continuous feedback to show understanding. We do not have awkward silences, but we also do not rush.
Establishing intersubjectivity (cohesive)	We have common ground to build our relationship. We are involved in the interaction. We can disagree while respecting each other.
Multimodality (technological)	I can understand my partner and express myself via audio and video, such as smiles, head nods, intonation, and tone of voice. I am aware of the technological opportunities (such as recording) and limitations (such as eye-contact) of the online set-up.
Beliefs about online communication (psychological)	I have my own set of beliefs on issues of trust, physical and psychological distance, and immersiveness in online communication.
Foreign language (linguistic)	I am involved in these interactions to develop my speaking skills, especially fluency and accent. I am aware of the linguistic opportunities and challenges of the native language of my partner. I am aware that I may not express myself as effectively as I can in my native language.
Apprehension and relaxation	I am aware that I (or my partner) can be nervous because of using DVC, of meeting a new person or of expressing her/himself in English.

Chapter 7 Conclusion

In this chapter, I present a summary of the main findings, followed their by theoretical, methodological and pedagogical implications. I conclude with a consideration of the limitations of the current study and potential research directions.

7.1 *Summary of findings*

The main finding of this study is the new framework introduced in section 6.7 to enhance the understanding of SP in FL settings via DVC and to aid analysis of learner-learner interactions in these contexts. Three existing components of the SP framework (building immediacy, sustaining interaction and establishing intersubjectivity) were revised and a further three dimensions (multimodal, linguistic and psychological) were proposed; all of which are interrelated to feelings of apprehension and relaxation. In the introduction to Case 1, I illustrated how the themes in the framework emerged and in Chapter 6, I explored each component in turn. These are the key findings in relation to the components of the framework.

- Smiles serve affective, interactive and cohesive functions by increasing warmth and immediacy, acting as backchannels indicating involvement and demonstrating shared understanding.
- Two types of self-disclosure emerged: 1. providing factual information about self and ideas, 2. disclosing emotions and narrating experiences and feelings.
- Audio visual cues ratify the authenticity of emotions and feelings.
- I addressed four questions in terms of researching self-disclosure (p. 221). My own perspective on these based on the findings of this study is as follows. First, affective tasks seem to promote more self-disclosure than cognitive tasks. For example, task 2 asked participants to share memories of their best friends. This

was when learners in Case 2 told each other their emotional experiences and felt closest. By contrast, tasks 3 and 4 required collaborative writing where learners focused on task completion. Second, self-disclosure of personal information specifically elicited by the task may not be perceived as self-disclosure, but as task completion. For instance, in Case 2, Filiz did not feel close enough because they did not go off-task despite sharing personal information required by the task. Third, what is considered as vulnerability or disclosure is perhaps merely personal; while a topic could be perceived as sensitive by one person, it may be completely impersonal for another. For instance, in Case 4, Emre was pleased that Osman told him that he was an immigrant, whereas it was perhaps a trivial part of Osman's identity which he could share with most people. Hence, self-disclosure is a matter of subjective judgment, with perceptions liable to vary across the sender, receiver and observer; making the researcher's task more challenging. Fourth, it is hard to conclude that DVC supports more self-disclosure. While more disclosure might have resulted from enhanced immediacy or awareness of the transitoriness of the relationship, it could equally be due to a lack of conversation topics between strangers or an attempt to elicit self-disclosure from the other.

- Compliments were not perceived as crucial by the learners in this study. There was a distinction between personal compliments and compliments on language use.
- Follow-up questions, reciprocal questions and questions that initiate new topics, as well as verbal and nonverbal backchannels, are important elements of continuing interaction.
- Intersubjectivity increased immediacy. Participants established intersubjectivity via shared interests; nationality and culture; native language; identities including age, education and aspirations; humour; experiences; and similar conversational styles and interaction patterns.

- Agreements (and disagreements) were perceived as a cohesive device rather than an interactive one, underlining similarities and helping meet at mutual ground.
- Vocatives did not appear to be a substantial element of cohesiveness.
- Use of inclusive pronouns was mostly task related.
- Certain features of the multimodal DVC environment enhanced trust, since nonverbal behaviours provide unconscious cues. Yet they were still insufficient due to disembodied and limited representation, delays and distortions in audio and video and lack of eye-contact. Increased trust meant increased self-disclosure and intimacy.
- Communication in FL was a challenge for self-expression and may cause frustration which would hinder observable involvement and SP.
- Apprehension and relaxation was central to social presence via DVC in FL, because it was a core element in issues of social interaction, conversational styles, interaction patterns, use of modes, attitudes towards online interaction and mediation of the self via language.

Interactional-sociolinguistic analysis of DVC recordings assisted exploration and illustration of SP in each case. In Chapter 5, I accentuated the following:

- Case 1: Interruptions and linguistic superiority might become an issue of power; humour, banter, laughter and soft tone of voice can be utilised to distance oneself from the seriousness of the utterances; intersubjectivity and membership are established via shared knowledge of popular media and accessories; smiles can be intended to promote positive attitude, but might be perceived as flirtatious.
- Case 2: Physical appearance (such as wearing a headscarf) can lead to certain interpretations of personality and paralinguistic cues and determine acceptable topics; DVC interactions are different from face-to-face interactions regarding shared physical space; accounting, apologising and promising can promote empathy.

- Case 3: Virtual co-presence in an interactive whiteboard can increase feelings of physical co-presence; being able to laugh together about vulnerabilities and expressions of trust in each other can increase immediacy; inability to express or understand FL can lead to frustration; gestures in DVC assist self-expression; simple verbal, vocal and visual backchannels, follow-up questions and toleration of silences ease communication.
- Case 4: Posture signals relaxation but can be restricted by the technical set-up; certain physical qualities (such as height) are understated via DVC; smiles can be used intentionally to promote warmth and project positive social presence; audio visual problems (such as echoes and delays) can interrupt smooth flow of conversation, which might necessitate higher tolerance of silence; technical problems and diverse understanding of task completion can lead to boredom and determine direction of friendship.
- Case 5: Smiles and tolerance of silences can relax learners and allow time for sentence construction in FL; simultaneous laughter can achieve interactional synchrony; self-adaptors can indicate discomfort due to physical settings, linguistic proficiency or gaze via webcam; and self-adaptors, if mutual, may not necessarily decrease immediacy.

Other important findings that emerged through the analysis were as follows:

- Eye-contact was mostly believed to be unattainable in DVC. Learners either pursued fixed or strategic gaze or tended to avoid gaze, perceiving direct gaze into the webcam as stare. Participants preferred looking at the screen, finding it more natural as they would miss their interlocutors' visual feedback if they looked at the camera.
- Learners were observed to code switch for better self expression when their FL skills were insufficient, which included humour and idioms; to increase immediacy, for task management, to solve technical problems and for saving face when

making FL mistakes. Despite a shared native language, two out of five cases (Case 2 and 3) completed all tasks in English only.

- Learners relied on text-chat as back up for audio, video and other tools, to clarify spelling, to avoid misunderstanding and embarrassment due to mispronunciation and for greetings before and after the DVC call. Otherwise, text-chat was rarely used.
- Visual expressiveness in DVC allowed for inferences about the culture and personalities of the interlocutors and increased immediacy. Multimodal elements in DVC, including facial expressions and tone of voice, presented enhanced mechanisms for meaning-making, positioning oneself and aligning power.
- DVC aided or hindered turn-taking mechanisms in online communication determined by the clarity of audio and video transmission.
- Feelings such as enjoyment, boredom, relaxation, nervousness and uneasiness, which determined the feel of the interaction, were transmitted mainly via the audio mode but also via the visual mode.
- Stimulated reflections indicated that text-only communication highlighted content; participants were clearer about intended meanings, attitudes, and turn-taking mechanisms when listening and watching; posture and position changes indicated apprehension states of interlocutors, confirmed by audio cues such as sighs, disfluency and smiles; audio visual backchannels improved perception of involvement; and audio visual cues confirmed the authenticity of immediacy and smiles, which were projected unconsciously.
- Last, but not least, there was individual variation in learners' projection and interpretation of social presence components.

7.2 Research questions revisited

In the introduction to this study, I outlined the initial areas of investigation. I now return to these questions.

- In online language learning, how is social presence experienced and measured in desktop videoconferencing?

The findings indicate that social presence is a complex, dynamic and mediated experience developed within interaction on an intersubjective plane. Mediation via technology, foreign language and learning tasks determines expression and experience of immediacy along with existing beliefs and doubts about online communication. Language learners' experience of SP via native and foreign languages could be disparate with fewer resources for self-expression in the latter, in particular for less proficient learners.

In terms of measurement, I discuss issues of measuring SP via content analysis and questionnaires under methodological implications below. Underlined by individual variation in how learners interpreted various components of SP, I believe interpretive qualitative studies from the learners' point of view in various multimodal contexts would enhance our understanding of the theory and development of suitable measurement tools.

- Does SP develop with time?

Time was an indicator of SP but not a direct predictor. Participants felt closer and more familiar as they spent more time together. In time, they were able to predict each other's reactions. However, there was no simple pattern in SP development over time.

- Are some indicators of the SP framework (Rourke et al., 1999) used less and/or more? Does the use of certain indicators change over time, for example, does humour increase and/or decrease with time?

There was individual variation in learners' set of components in developing their presence. Some participants used some components (for example, smiles, tolerance of silence, use

of vocatives, etc) with a consistent amount in each session. Yet, others utilised certain components actively and with varying frequency when needed in certain sessions; for instance smiling more in the first session in order to increase warmth and relaxation. This implied an intentional projection of SP and an estimation of how it would be perceived by the recipient.

- How do learners accommodate to different modes in creating their social presence online?

Participants used the written mode, that is, text-chat when they had linguistic and technological communication problems. They made conscious use of artefacts (including accessories), gaze, position and proximity of the webcam and the visual field transmitted. They were able to use gestures and interpret audio and visual backchannels for meaning making. I illustrate these in various sections including 5.1, 5.2, 5.3, 6.4.1 and 6.6.

- Are there individual differences, such as gender, in the choice of certain indicators of SP?

No gender differences were observed in terms of how participants projected and perceived SP. For instance, use of smiles, off-task talk, or self-disclosure did not vary for male and female participants. However, there were implications that certain topics would be not be appropriate and some immediacy cues could be perceived as flirtatious in mixed-gender interactions. These perhaps reflect the social norms of gender relationships in the specific culture.

- How close are DVC interactions to face-to-face encounters?

Participants were able to transfer most of their face-to-face skills to the DVC environment. They were able to use paralinguistic cues such as gestures, facial expressions, posture, tone and pitch of voice and made assumptions based on their clothing, accessories and the visible background. Yet most of the time they were aware of the physical distance and

lack of embodied interaction. The computer interface was visible especially when audio or video was distorted. Immersiveness decreased with personal worries or worries about equipment, good transmission, or connection failure. Participants felt immersed only in certain situations; such as when 'doing' something together, such as drawing a room. The visual interaction highlighted fluid identities and relationships, such as the language learner, male/female young adult, or Muslim. Participants were cautious about these identities as online interactions presented only a partial view of the people and did not accommodate "doing things together". Although trust was already established (by the researcher here and perhaps by the tutor in learning contexts), participants were wary of role played identities.

Other research questions remain unanswered:

- Does the SP template, and thus content analysis, represent a valid measurement of SP for DVC interactions in a language learning setting? If so, to what extent is it possible to apply the SP framework to DVC?
- Are all indicators in the SP framework equally important? If not, which indicators explain for most of the variance? Which indicators of SP are underscored to compensate for lack of modes or understated due to availability of multiple modes?

These questions have been left unanswered mainly because my research design within an interpretivist-constructivist paradigm no longer matched with the positivist content analysis. As my understanding of researching the world changed, I aimed to develop a qualitative analysis framework to enhance understanding of social presence rather than a measurement tool. This change was also reflected in the development of my understanding of social presence as a measurable entity from the researcher's point of view to a deeper understanding as a perceptive quality of the participants involved.

7.3 Theoretical implications: social presence

One of the findings I have demonstrated is that patterns of projecting social presence are unpredictable because of individual variation. It appears that each learner projects their own presence into the interaction, while constantly interpreting others'. This suggests the existence of an intended social presence of the self along with perceived presence of others. There may be differences between how one intends to project his/her social presence and how other(s) perceive it. The findings also imply that social presence is not a constant and fixed quality, but is dynamic and co-constructed during interaction with moments of higher immediacy and interactional synchrony. It is also worth considering whether social presence is an accumulative or a temporal quality. Would learners perceive instances of smooth, immediate and coherent interaction established during certain moments throughout a course as successful representation of their presence or would these instances need to increase over time? Finally, the medium of language (whether native or foreign) and technology (mono- or multimodal) are highly relevant to learners' skills of projecting and interpreting social presence.

7.4 Methodological implications: multimodal CMC research

Working with multimodal data has been an exciting but also a frustrating experience. The data was richer than I could analyse within the time restrictions. A qualitative approach to multimodal data, striving for findings to emerge from data rather than testing hypotheses, could be daunting without a clear focus on what to analyse. Lack of established analysis frameworks in multimodal contexts is a persistent challenge that current researchers face. Hence, I propose the social presence framework as a potential analytical framework for further research, perhaps focusing on the refinement of each component in more detail.

Combining multiple sources of data in an attempt to provide both emic and etic perspectives via interviews, questionnaires and analysis of recorded learner interactions

was also challenging. Although initially I had planned to base my analysis of recordings on the analysis of participant perspectives, the analytical procedures were more complicated and intertwined. Themes that emerged in interview and questionnaire analysis illuminated salient incidents in the recordings and at the same time, as case introductions began to take shape, the relationship among and salience of emerging themes became prominent.

Multimodal transcription is very complicated. It takes a considerable amount of time and requires high selectivity. However, during the initial stages of analysis when still exploring potential areas, being selective does not help much. At this stage, I found qualitative analysis software (Atlas-ti) a very helpful research tool which allows for initial annotations as well as subsequent detailed transcriptions.

In terms of data collection instruments, quantitative data collected via questionnaires were not very effective as I discuss in section 6.5. Interviews were effective as a qualitative and perceptive assessment of social presence. Stimulated reflection proved to be a very efficient tool in eliciting participants' own understanding of relational mechanisms. Their interpretations reflected elements of their own interaction, which underscored the importance of prior experiences in projecting and interpreting social presence.

During the initial stages of my research, I attempted to develop a content analysis framework of social presence. However, the lack of prior research in the field and the complexity of each component in multimodal interaction put the definitive framework beyond what I could achieve within the limitations of this thesis. For future research, I would suggest focusing on the individual components of social presence and developing specific analytical frameworks for either quantitative or qualitative analysis.

7.5 Pedagogical implications: language learning

Findings confirmed that learner-learner interactions offer learners opportunities for active control over topic selection and for exploring diverse interaction patterns (Abrams, 2008). Learners specifically cherished the opportunity to practise their FL skills. Although not instructed to do so, most watched their recordings to notice errors and improve linguistically. They were content to share the same culture and native language as a resource for self-expression, understanding and intersubjectivity. Learners also expressed their willingness to interact with native speakers to improve their pronunciation and to learn more about the target language and culture. Yet there were implications that interaction with native speakers could arouse apprehension and uneasiness especially among less confident and/or proficient learners. Tutors willing to set up online collaboration among learners and native speakers should carefully consider learner needs, potential benefits and challenges of intercultural collaboration (Belz, 2002; O'Dowd & Ritter, 2006).

In terms of task, flexibility should be built into task design. Tasks which provide plenty of space and time for off-task talk and which trigger lots of comments and bring in participants' experiences would increase immediacy and create genuine interest in conversation. Optional and personal tasks or open-ended questions to stimulate communication could be set for learners who struggle to initiate talk. Equal speaking time and chances to initiate topics among learners should be carefully planned to avoid power conflict. The balance between power and distance is important to establish solidarity (Scollon and Scollon in Kinginger, 2000).

Communication in a foreign language requires certain skills and strategies to ensure a smooth flow of interaction. Such strategies that emerged in this study included asking questions, initiating mutually interesting topics, smiling, offering language related

compliments, talking off-task, using simplified language, and tolerating ambiguity in meaning.

Regarding the DVC setting, learners mostly complained about the technical challenges such as audio and video delays and interruptions which caused overlaps, echo and silences. Learners and tutors should be equipped with skills to interpret and tolerate interruptions and silences. Various interpretations could include an indication of technological problems, unwillingness to continue, time needed to construct FL, submissiveness, or the awkwardness of talking to a stranger. Learners could be advised to demonstrate linguistic empathy and tolerate ambiguity.

Skills in interpreting mediated eye-contact are necessary for the online tutor and learners. The mismatch between intended and perceived attempted eye-contact via direct gaze into the webcam, that is, supportive eye-contact or a challenging stare, is an obstacle built into current DVC technology. An inbuilt camera which accommodates minimal change in gaze between the camera and the screen (or a similar position of the external camera) might provide the optimum set-up for less intrusive gaze.

The influence of posture, clothing, and accessories on the projection of social presence should also be considered. Tutors might choose to involve visual interaction either at the beginning of courses when learners need to establish social images of each other, or further on in the course to avoid prejudices which might occur due to misleading visual representations. Tutors should not overlook learners' physical settings (such as internet café, dormitory or private room) and the influence of the intangible physical environment on the interaction.

In foreign language learning contexts, the benefits of text-chat are widely documented, e.g. less pressure on fluency and pronunciation and opportunities for self-correction.

Multimodal elements, on the other hand, may ease communication through opportunities for self expression via vocal and visual paralinguistic cues, such as intonation and gestures. The influence of audio-visual elements on anxiety and linguistic development should be explored further regarding learners with various levels of linguistic and technological proficiency.

7.6 Main contributions to the field

This research is original in its multimodal approach to the qualitative investigation of social presence. Recent literature in social presence has focused on its exploration in text-based CMC. Thus, the influence of multimodal communications made available by emerging technologies on social presence in the interactions between physically distant participants has been unknown.

Likewise, the development of the new framework as a research tool to analyse social presence in multimodal interactions between language learners is highly significant for further research in the field. The findings not only confirm the validity of existing typologies, but also extend a widely applied framework to a new context, specifically to the analysis of spoken and visual interaction in a foreign language.

Moreover, the findings suggest guidelines to both teachers and learners in similar contexts to facilitate social presence between the participants. In particular, the importance of task design is foregrounded to allow ample opportunities for off-task talk. Teachers can foster the establishment of SP by facilitating learners to incorporate their feelings, experiences, examples and ideas in task completion. Encouraging learners to initiate new topics, to ask follow-up questions, and to provide quick backchannels is crucial for the continuation of the interactions. Teachers who wish to set up CMC collaboration for their learners should consider the influence of interaction among learners of different and similar cultures on the establishment of intersubjectivity, especially when

interactions are in a foreign language which limits self expression. When matching pairs, learners' apprehension, confidence and proficiency levels are also crucial to satisfy their expectations from the interaction. Learners should be aware of the potential silences in interaction due to lack of intersubjectivity especially at initial conversations, limited linguistic proficiency or technological glitches and learn to tolerate and interpret these ambiguities. Learners and teachers should keep in mind that although being a multimodally rich context, DVC is a technology that mediates interaction and it is different from face-to-face communication. Most prominent differences are delays and distortions in audio and video, limited visual field and mediated eye-contact. Teachers and learners should learn to accommodate and manipulate these factors to project and interpret social presence online.

7.7 Concluding remarks

The arguments I make in this study relate to the five cases described and their specific contexts, in particular FL interaction via DVC among unfamiliar learners who share a native language and culture. This readily available intersubjectivity provided common ground for humour and empathy and enabled the smooth development of social presence. It would certainly be interesting to observe SP in intercultural interaction.

One of the challenges I faced was to decide whether to develop a framework of SP components to establish an overview or to select certain components and concentrate solely on these. I chose the former believing that the bigger picture is needed prior to more in-depth analysis. The relationship of each component with the overall outcome would reveal intriguing findings.

I have reviewed the theoretical, methodological and pedagogical implications of the study and suggested relevant research directions. Tannen's (2005) work on conversational style could guide research on immediacy and intersubjectivity; and Eggins and Slade's (1997)

analysis of discourse structure of casual conversation and interaction could facilitate better understanding of interactivity. Finally, the development of SP over time and factors underpinning individual variation remain relatively unaddressed.

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Appendix 1: Information letter

Dear Participant,

I'm a PhD student at the Open University, UK and am studying the use of computer-mediated communication for language learning. The specific aims of my thesis project are;

- to describe online video communication in a foreign language and
- to identify how features of different media are used in online video communication in a foreign language.

By participating you'll have a chance to meet fellow students in another university in Turkey and share experiences. You'll have the opportunity to practice your speaking and listening skills. You'll also experience online video communication as a learner and as a future teacher. Your participation to the research is very much appreciated. It will require you;

- to have and record three online video chats (each 45-50 minutes) with an ELT student in Turkey and to share your session recordings with the researcher
- to have an hour long face-to-face interview with the researcher at the end of the sessions.

The project will take place over 4 weeks (one online video communication for three weeks and the interview on the last week) between November 2008 and March 2009. The total amount of time you'll have to allocate will be about 3-4 hours (about 2-3 hours for online meetings and an hour for interview).

Please be assured that you can withdraw anytime and no adverse consequences will result. The results of any research project involving Open University students constitute personal data under the Data Protection Act. They will be kept secure and not released to any third party. The data will be destroyed one year after the project is completed or in case of withdrawal. Your anonymity and confidentiality will be protected at all times.

For further information please do not hesitate to contact.

H. Müge Satar (PhD Student)

The Open University, UK,

Faculty of Education and Language Studies

Tel: +44 1908 655221

H.M.Satar@open.ac.uk

Appendix 2: Consent form

Title of Project: Video-Mediated Online Communication in an EFL Context

Agreement to Participate

I,

(print name)

agree to take part in this research project.

I have had the purposes of the research project explained to me.

I have been informed that I may refuse to participate at any point by simply saying so.

I have been assured that my confidentiality will be protected as specified in the letter/leaflet.

I agree that the information that I provide can be used for educational or research purposes, including publication.

I understand that if I have any concerns or difficulties I can contact:

H. Müge Satar

at:

(the researcher)

The Open University

Walton Hall

MK76AA

United Kingdom

If I wish to complain about any aspect of my participation in this project, I can contact the

Associate Dean (Research) at:

or

Prof. Jim Coleman (primary supervisor) at:

The Open University

Faculty of Education and Language

Walton Hall

MK76AA

United Kingdom

I assign the copyright for my contribution to the Faculty for use in education, research and publication.

Signed:

Date:

Appendix 3: Table of data collected

Phase 1 (December 2008 – January 2009)

Data	Data Collection	Amount of data
Background questionnaires	Prior to online sessions	Questionnaires sent via e-mails – one per participant (total of 4)
Three online video sessions for each case	Case 1: (Male/Female) Session 1: 46 minutes, 7293 words; Session 2: 43 minutes, 7093 words; Session 3: 69 minutes, 8867 words.	A total of 6 sessions (3 per pair) Average 45 minutes each (about 4.5 hours in total) Digitally recorded and transcribed online dyadic audio and video interactions
	Case 2: (Female/Female) Session 1: 41 minutes, 1717 words (more than half of the interaction was inaudible); Session 2: 44 minutes, 4696 words; Session 3: 47 minutes, 5825 words.	

Post-task questionnaires (Open-ended questions reflecting on an aspect of the study)	After session 1: qualities of the tool After session 2: foreign language use After session 3: social presence	Sent by e-mail – three per participant (total of 12) Exception: Zeynep answered post-task 3 questionnaire orally before the interview (audio recorded and transcribed)
Semi-structured interviews (At the end of interviews comments on 3-minute pilot interaction in different modes: 1 st text (transcription); 2 nd : audio; 3 rd : video.)	At the end of three sessions, conducted face-to-face at university campuses Zeynep: 56 minutes, 7514 words; Deniz: 82 minutes, 8352 words; Filiz: 78 minutes, 9405 words; Nil: 81 minutes, 7113 words	one per participant – total of 4 Average: 1.3 hours each Audiotaped and transcribed
Final questionnaires	End of the study (Quantifiable data and comments on existing and potential social presence indicators)	one per participant – total of 4 Deniz and Nil e-mailed the questionnaire. Filiz filled it in on paper after the interview. Zeynep answered the questions orally after the interview (audio recorded and transcribed).

Phase 2 (April – May 2009)

Data	Data Collection Period	Amount of data
Background questionnaires	Prior to online sessions	Questionnaires sent via e-mails – one per participant (total of 6)
Four online video sessions for each case	<p>Case 3: (Female/Female)</p> <p>Session 1: 30 minutes; Session 2: 46 minutes; Session 3: 35 minutes; Session 4: 33 minutes</p> <p>Case 4: (Male/Male)</p> <p>Session 1: 35 minutes; Session 2: 42 minutes; Session 3: 36 minutes; Session 4: 52 minutes</p> <p>Case 5: (Female/Male)</p> <p>Session 1: 55 minutes; Session 2: 38 minutes; Session 3: 42 minutes; Session 4: 95 minutes</p>	<p>A total of 12 sessions (4 per pair)</p> <p>Average 45 minutes each (about 9 hours in total)</p> <p>Digitally recorded online dyadic audio and video interactions.</p> <p>(Only critical events were transcribed)</p>
Post-task questionnaires (same questions after each session to track	<p>After each online session</p> <p>Last questionnaire also involved open-ended questions reflecting on different aspects of the study: qualities of the</p>	<p>Four per participant – total of 24</p> <p>Sent via e-mail</p>

change in / development of social presence)	tool, foreign language use, and social presence	
Semi-structured interviews (At the end of interviews comments on 3-minute pilot interaction in different modes: 1 st audio; 2 nd : text (transcription); 3 rd video)	At the end of four sessions, conducted face-to-face at university campuses or cafes/restaurants Hale: 90 minutes, 7704 words; Defne: 84 minutes, 6692 words; Emre: 130 minutes, 8247 words; Osman: 135 minutes, 8813 words; Ali: 100 minutes, 6096 words; Eda: 109 minutes, 6144 words	one per participant – total of 6 Average: 1,8 hours each Audiotaped and transcribed (off-task talk between interviews excluded in transcription)
Final questionnaires	End of the study (Quantifiable data and comments on existing and potential social presence indicators)	one per participant – total of 6 E-mailed following the interview.

Total amount of data: 10 Background questionnaires, 18 DVC sessions (total of 829 minutes), 32 post-task questionnaires, 10 interviews, including stimulated reflection (total of 945 minutes, 76080 words), 10 final questionnaires

Appendix 4: Tasks in phase 1

SESSION 1:

Task 1: (Time 10-15 minutes)

Preparation: Spare a few minutes to think about and note down:

1. Three areas you want to explore about your partner; such as family life, favourite movie, music taste, hometown, sports, etc.
2. Three numbers that represent important things in your life; for example, 2: the number of cats/siblings you have, 12: the number of years you've been living in the same city, etc.

Task:

1. Take turns in exploring about your partner and providing information about yourself.
2. Tell one of the numbers you've noted down and your partner will try to guess what the number represents in your life. Take turns in telling the numbers and guessing.

Please feel free to follow up any of the things you'd like to share/learn more about; keep in mind that the aim of the session is to give you a chance to get to know each other and try the chat application.

Task 2: (Time 15-20 minutes)

Preparation: Have a blank A4 sheet. Draw your dream room. If you have colourful pencils at hand, you could colour your room :). PS. It doesn't have to be a nice drawing; it could be just a quick, simple sketch. You don't need to go into too much detail; you should spend at most 15 minutes for this task.

Task:

1. Now take turns to describe your rooms to each other, including where each furniture is (you could describe them as well, for example, I have a round white table in the corner with a big computer screen on it.)
2. As one of you describes, the other should have another blank A4 sheet and try to draw it! Again, it could be just a simple sketch!

3. Now it's time to show each other your drawings from the webcam! Did you get it right?

Don't forget the pictures might look like as in a mirror and colour might look different.

4. Now talk about your REAL room. What is different from/similar to your dream room?

What things you like in your room, why? What things are different in your dream room, why?

SESSION 2:

Task 1: (Time 10-15 minutes)

Preparation: Write down 5 words from the box below that describe you and your best friend.

	1	2	3	4	5
Me					
My best friend					

Here is the list: (You could use others which are not in the list)

<input type="checkbox"/> Attractive	<input type="checkbox"/> Brave	<input type="checkbox"/> Cheerful	<input type="checkbox"/> Confident
<input type="checkbox"/> Creative	<input type="checkbox"/> Energetic	<input type="checkbox"/> Funny	<input type="checkbox"/> Happy
<input type="checkbox"/> Helpful	<input type="checkbox"/> Honest	<input type="checkbox"/> Idealistic	<input type="checkbox"/> Independent
<input type="checkbox"/> Intelligent	<input type="checkbox"/> Kind	<input type="checkbox"/> Logical	<input type="checkbox"/> Mature
<input type="checkbox"/> Nervous	<input type="checkbox"/> Organised	<input type="checkbox"/> Patient	<input type="checkbox"/> Pessimistic
<input type="checkbox"/> Proud	<input type="checkbox"/> Realistic	<input type="checkbox"/> Romantic	<input type="checkbox"/> Sentimental
<input type="checkbox"/> Shy	<input type="checkbox"/> Stylish	<input type="checkbox"/> Sweet	<input type="checkbox"/> Wise
➡ Describe in 5 words!			

Task:

1. Take turns to tell your friend about your personality. Use the 5 words you have noted about yourself. And give examples for why you describe yourself like that. For example: I am friendly; I like people and spending time with my friends.

I am clever; I got 85 from my last exam. etc.

2. Do you have anything in common? How similar / different are you?

3. When both of you have talked about each other, then take turns to make 5 guesses about how your partner's best friend is like. For example, I think your best friend is happy. How many could you guess?

4. Now talk about your best friend. How is he/she like? Why is he/she your best friend? Do you have a memory with him/her you can't forget?

Task 2: (Time 10-15 minutes)

Preparation: Go to this website. You are asked to draw a pig. After you draw your pig, name it and save it. Then based on your drawing, answer the questions to read about your personality. When you finish send the link to your friend if you want to share your drawing. To do that Scroll down and copy the link under the box which says "If you want to link to this piggy please use this link:" Send this link to your friend.

<http://drawapig.desktopcreatures.com/drawApig.asp>

Task:

1. Talk to your friend about your test results. Is the test correct? Give examples.

2. Another way to predict character is by horoscopes. What sign are you? Tell your friend about the traits of your sign (you could learn it from here

<http://www.12astrologyzodiacsigns.com/zodiacsigns/charactertraitsofzodiacsigns.shtml>)

Do you believe in horoscopes? Do you fit the traits of your sign? Discuss.

SESSION 3:

Task 1: (Time 10-15 minutes)

Preparation: Think about what you do every day. Which of these things you really like doing and which of these you do because you have to! (you can use the below list as a guide):

go to university / take the bus / study / make your bed / watch TV / wash the dishes / cook / iron / have breakfast / others:

Now think about what you like doing in your free times? (you can use the below list as a guide):

Shopping / going to movies / going to theatre / going to concerts / playing computer games or play station / listening to music at home / watching DVDs at home / having coffee and chatting with friends at a café / eating out / spending time at parks / doing sports: playing football, tennis, swimming etc. / playing a musical instrument: guitar, violin, flute, etc. / cooking: Turkish dishes, international dishes, salads, desserts, etc.

Task:

1. Take turns in exploring about each other's daily life; what do you do when? Which of these you really enjoy doing and which you do just because you have to?
2. Now take turns to talk about your free times. What are your favourite activities or your favourite music band? / movie? / book? / café? / clothes shop? /
3. Find 3 differences and 3 similarities you have for what you do every day and for what you do in your free times. How similar and different are you?

Please feel free to follow up any of the things you'd like to share/learn more about each other.

Task 2: (Time 10-15 minutes)

Preparation: Imagine your partner is coming over next week to your hometown to spend the weekend with you. Think about your hometown – where would you like to take your partner? Do you have any pictures of your favourite places?

Task:

1. Plan a weekend together in [NameOfCity1]. Tell your partner about your hometown. Where would you go? What would you do? Suggest choices to your partner to choose from. Keep in mind his/her favourite activities you have talked about in the previous task.
2. Now plan a weekend together in [NameOfCity3].
3. Send each other pictures of the places if you have any.

Appendix 5: Tasks in phase 2

SESSION 1: (about 30-35 minutes)

1. Think about three areas you want to explore about your partner; such as family life, favourite movie, music taste, hometown, sports, etc. Explore the areas you have chosen in 1 above. Take turns in asking about your partner and providing information about yourself.

2. Think about three numbers that represent important things in your life; for example, number 2: the number of cats/siblings you have, number 12: the number of years you've been living in the same city, etc.

Tell your numbers one by one to your friend and your partner will try to guess what the number represents in your life. Take turns in telling the numbers and guessing. For example, if you have picked 2, your partner may ask 'Is 2 the number of your sisters?', 'Is it the number of bags you have?', etc.

Please feel free to follow up any of the things you'd like to share/learn more about; keep in mind that the aim of the session is to give you a chance to get to know each other and try the chat application.

SESSION 2: (about 30-35 minutes)

1. Take turns to tell your friend about your personality. Give examples for why you describe yourself like that. Use at least 5 adjectives. For example: I am friendly; I like people and spending time with my friends. I am clever; I got 85 from my last exam. etc.

Here is a list to help you. Feel free to use others which are not in the list.

Attractive	Ambitious	Annoying	Brave
Big-headed	Careless	Cheerful	Confident
Conventional	Creative	Cowardly	Energetic
Funny	Happy	Helpful	Honest

Idealistic	Independent	Intelligent	Kind
Laid-back	Logical	Mature	Modest
Nervous	Organised	Patient	Pessimistic
Proud	Realistic	Romantic	Selfish
Sentimental	Shy	Stylish	Stubborn
Sweet	Trustworthy	Weird	Wise

2. Do you have anything in common? How similar / different are you?

3. Do you believe in horoscopes? Can you guess what sign your friend is?

Do you fit the traits of your sign? Discuss.

(you could learn the traits of signs from here

<http://www.12astrologyzodiacsigns.com/zodiacsigns/charactertraitsofzodiacsigns.shtml>)

4. When both of you have talked about each other, then take turns to make 5 guesses about how your partner's best friend is like. For example, I think your best friend is happy, because, etc. How many could you guess?

5. Now talk about your best friend. How is he/she like? Why is he/she your best friend? Do you have a memory with him/her you can't forget?

Optional (5 minutes)

Go to this website. <http://drawapig.desktopcreatures.com/drawApig.asp>

You are asked to draw a pig. After you draw your pig, name it and save it. Then based on your drawing, answer the questions to read about your personality. When you finish send the link to your friend. To do that scroll down and copy the link under the box which says:

"If you want to link to this piggy please use this link:" Send this link to your friend.

Talk to your friend about your test results. Is the test correct? Give examples.

SESSION 3: (about 30-35 minutes)

Preparation: Have a blank A4 sheet and pencils.

Imagine your dream room. What would you like to have in your room? Think about the furniture, walls, colours, etc.

Task:

1. Take turns to describe your dream rooms to each other. As one of you describes, the other should have a blank sheet and try to draw it! It could be just a simple sketch – no need to go into detail 😊
2. Now it is time to show each other your drawings from the webcam! 😊
3. You can now talk about your REAL rooms. What is different from/similar to your dream room? Which things do you like in your room, why? Which things are different in your dream room, why?
4. Finally imagine that you are roommates. Accept the invitation I will send to your e-mails and go online to draw the room you will share together. Discuss and decide what you want in the room, where you'll put what and why?

Now WRITE a DESCRIPTION together of the room you've just drawn! Choose 'type' from the "tools" menu and write the description on the screen. Alternatively you can write it in the chat window in ooVoo.

SESSION 4: (about 40-45 minutes)

1. Think about what you do every day. (you can use the below list as a guide):

go to university / take the bus / study / make your bed / watch TV / wash the dishes / cook / iron / have breakfast / others:

Take turns in exploring about each other's daily life; what do you do when? Which of these things you really enjoy doing and which you do just because you have to?

2. What you like doing in your free times? What are your favourite activities or your favourite music band? / movie? / book? / café? / clothes shop? / food? / etc.
3. Find 3 differences or similarities about what you like. How similar and different are you?
4. Imagine your partner is coming over next week to your hometown to spend the weekend with you. Tell your partner about your hometown. Where would you go? What

would you do? Suggest choices to your partner to choose from. Keep in mind his/her favourite activities you have talked about in the previous task.

5. Now change turns 😊

6. Send/show each other pictures of the places if you have any.

7. Choose one of the cities and together WRITE online what you'll be doing at the weekend in that city (I'll send you a link to online whiteboard). Keep in mind the things you both like – you should both enjoy the time😊. If you have pictures add those to your writing if you can.

In Tasks 3 and 4 we used Scriblink as online whiteboard (<http://www.scriblink.com/>)

Appendix 6: Background questionnaire

This document aims to elicit some background information on your experience of computer-mediated communication tools, your computers capacity and your evaluation of your language use. The questions are written both in Turkish and English.

1. Specifications of the computer you will use for your online exchanges. You could skip this question if unknown.

Computer specifications (You can check these from Start > My computer > Show system information)	
Operating system: (Windows XP, Vista, Mac, etc)	.....
Processor:	.....
RAM:	.....
Internet connection (Start>My network connections > show network connections > right click on you active connection > Status > from there you can find the speed)	
ADSL or dial-up?	.....
Internet connection speed:	.....

2. Your average amount of access to Internet. Please check the one that applies the most.

- ☐ Rarely
- ☐ Every few weeks
- ☐ 1-2 times a week
- ☐ 3-5 times a week
- ☐ Once a day
- ☐ Many times a day

Other (Please state):

Continued on next page

3. Your level of English. Please choose the one that applies the most.

- ☐ Elementary
- ☐ Pre-intermediate
- ☐ Intermediate
- ☐ Upper-intermediate
- ☐ Advanced

4. Which of these online synchronous communication tools do you use?

- ☐ msn / windows live messenger
- ☐ skype
- ☐ googletalk
- ☐ flashmeeting
- ☐ Elluminate
- ☐ others (please specify)
- ☐ None of the above

If your answer is none of the above, please skip to question 8.

5. Which modes do you use in these chat applications?

- ☐ text
- ☐ audio
- ☐ video

Continued on next page

6. How often do you use each mode in these applications **in your native language**
(Turkish)? Please check the one that applies the most.

text	audio	video
<input type="radio"/> Never	<input type="radio"/> Never	<input type="radio"/> Never
<input type="radio"/> Rarely	<input type="radio"/> Rarely	<input type="radio"/> Rarely
<input type="radio"/> Every few weeks	<input type="radio"/> Every few weeks	<input type="radio"/> Every few weeks
<input type="radio"/> 1-2 times a week	<input type="radio"/> 1-2 times a week	<input type="radio"/> 1-2 times a week
<input type="radio"/> 3-5 times a week	<input type="radio"/> 3-5 times a week	<input type="radio"/> 3-5 times a week
<input type="radio"/> once a day	<input type="radio"/> once a day	<input type="radio"/> once a day
<input type="radio"/> Many times a day	<input type="radio"/> Many times a day	<input type="radio"/> Many times a day
<input type="radio"/> Other (Please state):	<input type="radio"/> Other (Please state):	<input type="radio"/> Other (Please state):
.....

Please state why you use each mode? When do you communicate by writing, when do you talk, when do you use video? With who, in which language, talking about what?

.....

.....

.....

.....

Continued on next page

7. How often do you use each mode in these applications **in your foreign language**
(English)? Please check the one that applies the most.

text	audio	video
<input type="radio"/> Never	<input type="radio"/> Never	<input type="radio"/> Never
<input type="radio"/> Rarely	<input type="radio"/> Rarely	<input type="radio"/> Rarely
<input type="radio"/> Every few weeks	<input type="radio"/> Every few weeks	<input type="radio"/> Every few weeks
<input type="radio"/> 1-2 times a week	<input type="radio"/> 1-2 times a week	<input type="radio"/> 1-2 times a week
<input type="radio"/> 3-5 times a week	<input type="radio"/> 3-5 times a week	<input type="radio"/> 3-5 times a week
<input type="radio"/> once a day	<input type="radio"/> once a day	<input type="radio"/> once a day
<input type="radio"/> Many times a day	<input type="radio"/> Many times a day	<input type="radio"/> Many times a day
<input type="radio"/> Other (Please state):	<input type="radio"/> Other (Please state):	<input type="radio"/> Other (Please state):

When and how do you use English in your written, audio and visual chats interactions: For example, when chatting with your tutors, with your friends as part of class requirements, only for certain expressions with your friends, with foreigners, etc. Please explain.

.....

.....

.....

.....

8. And finally please state your age:

Appendix 7: Post-task questionnaires in phase 1

SESSION 1

This document aims to elicit your initial experience in your videoconference communication and your views on the tool. Please fill in all details. The questions are written both in Turkish and English. Please write your responses in the language you feel you can express yourself best (Turkish or English).

1. What do you think about the videoconference software? Was it easy to use?

.....

.....

2. Please put an X to the best answer for the following questions:

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					
Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together and helped each other to do the task?					

Based on your answers above, which features of your communication made / helped you feel like that?

.....

.....

3. How did you feel during the videoconference sessions? Please state why / why not?

Provide examples.

.....

.....

4. Please rate the following about web-based videoconferencing based on your experience in the session.

1. Totally Disagree 2. Disagree 3. Undecided 4. Agree 5. Totally Agree

STATEMENTS	1 – 5	Comments and/or reasons:
1. I look forward to the opportunity to interact with others via this online medium.		
2. Although I speak fluently in English in class, I was at a loss of words when interacting via this online medium.		
3. I would always avoid communicating via this online medium if possible.		
4. I felt that I am more skilled than most others when interacting with people via this online medium.		
5. I would be afraid to express myself in group discussions via this online medium.		
6. I was afraid to voice my opinions when interacting with my partner via this online medium.		
7. I disliked having to limit my communication to what is possible via this online medium.		
8. I would like to get involved in discussion via this online medium.		

This document aims to elicit some information on your experience of computer-mediated communication, language and language learning. Please fill in all details. The questions are written both in Turkish and English. Please write your responses in the language you feel you can express yourself best (Turkish or English). (You have answered questions 1 and 2 before. This time please answer again specifically for this session.)

1. Please put an X to the best answer for the following questions:

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					
Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together and helped each other to do the task?					

Based on your answers above, which features of your communication made / helped you feel like that?

.....

.....

2. How did you feel during the videoconference sessions? Please state why / why not?

Provide examples.

.....

.....

3. How did you feel about talking in English to a Turkish person? Examples?

.....

.....

4. a) Would you prefer talking to a native speaker? Why/Why not?

.....
.....

b) Would you prefer talking to a foreigner (somebody who can't speak Turkish, but not a native speaker)? Why/Why not?

.....
.....

5. a) What helped you understand each other better and/or solve communication problems?

.....
.....

b) Please also comment on the role of being able to read/write, hear/speak and see each other.

.....
.....

6. Did you learn any English in the session? Can you give any examples?

.....
.....

7. What do you think about doing sessions like this for a) language learning, b) language teaching and c) language practice?

.....
.....
.....

8. Can you think of any challenges/benefits of videoconferencing? For which purposes and how could it be used?

.....
.....

9. Would you be willing to take part in such an activity if your teacher arranged such sessions with students of another university in Turkey as part of the course and/or as an optional activity? Why/Why not?

.....

.....

10. a) If you were the teacher, would you organize such sessions?

.....

.....

b) If you would, what would you do differently ?

.....

.....

c) What advice would you give to a teacher who wants his/her students to do such an activity?

.....

.....

SESSION 3

This document aims to elicit some information on your experience of computer-mediated communication, language and language learning. Please fill in all details. The questions are written both in Turkish and English. Please write your responses in the language you feel you can express yourself best (Turkish or English). (You have answered questions 1 and 2 before. This time please answer again specifically for this session.)

1. Please put an X to the best answer for the following questions:

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					

Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together and helped each other to do the task?					

Based on your answers above, which features of your communication made / helped you feel like that?

.....

.....

2. How did you feel during the videoconference sessions? Provide examples.

.....

.....

3. What do you think was the worst thing about the videoconference sessions?

.....

.....

4. What do you think was the best thing about the videoconference sessions?

.....

.....

5. Compare your videoconferencing sessions to your interactions with your friends in the classroom when you are working in pairs on a given language learning task. Are they different? If so, in which ways are they different? Can you give example(s)?

.....

.....

6. Have your thoughts and feelings changed as you had more sessions
a) about your partner and b) towards communication in videoconferencing?

.....

.....

7. Please rate the following about web-based videoconferencing based on your experience in the sessions.

1. Totally Disagree 2. Disagree 3. Undecided 4. Agree 5. Totally Agree

STATEMENTS	1 – 5	Comments and reasons:
1. Getting to know the other participant by talking via this online medium gave me a sense of belonging in the communication.		
2. I was able to form distinct impressions of the other participant.		
3. This communication mode is an excellent medium for social interaction.		
4. I felt comfortable disagreeing with the other participant while still maintaining a sense of trust.		
5. I felt comfortable interacting with the other participant.		
6. I felt that my point of view was acknowledged by the other participant.		
7. Online conversations helped me to develop a sense of collaboration.		
8. I felt comfortable introducing myself on this online medium.		
9. I felt comfortable expressing my feelings on this online medium.		
10. Conversations using this online medium was more impersonal than face-to-face conversation.		

8. Do you have any other comments about your experience of communicating via videoconference?

.....
.....

Finally:

What advice would you give to the researcher to improve the next phase of the research?

a) about the videoconference sessions:

.....

b) about the tasks:

.....

c) about these questions:

.....

Do you have any other comments?

.....
.....

Thank you very much for all your help. Please rest assured all the information you have provided is confidential.

Appendix 8: Post-task questionnaires in phase 2

SESSION 1

1. What would you like to tell about your online interaction? If you were keeping a journal what would you write in it about this interaction?

2. What can you say about your conversation partner? What are your first impressions?

3. To what extent do you think you know your conversation partner? Can you trust him/her as a close friend?

4. What can you say about your communication? Do you think it was intimate and sincere. Why? Can you give examples?

5. How did you feel in this interaction? Why? Can you give examples?

6. Please put a X to the most appropriate answer to the below questions.

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					
Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together and helped each other to do the task?					

What would you like to say about these four questions? For all four questions which features of your communication caused / helped you feel like that?

Thank you very much for all your help. ☺

Please rest assured all the information you have provided is strictly confidential and will not be used for any other purposes than the aims of this research.

SESSION 2

1. What would you like to tell about your online interaction? If you were keeping a journal what would you write in it about this interaction?

2. Have your impressions about your conversation partner changed in this session? If so, in which ways and why? Please give an example.

3. To what extent do you think you know your conversation partner? Can you trust him/her as a close friend?

4. What can you say about your communication? Do you think it was intimate and sincere. Why? Can you give examples?

5. How did you feel in this interaction? Why? Can you give examples?

6. Please put a X to the most appropriate answer to the below questions.

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					
Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together					

and helped each other to do the task?					
---------------------------------------	--	--	--	--	--

What would you like to say about these four questions? For all four questions which

features of your communication caused / helped you feel like that?

Thank you very much for all your help. ☺

Please rest assured all the information you have provided is strictly confidential and will not be used for any other purposes than the aims of this research.

SESSION 3

1. What would you like to tell about your online interaction? If you were keeping a journal what would you write in it about this interaction? **What were the best and the worst aspects of your interaction?**
2. Have your impressions about your conversation partner changed in this session? If so, in which ways and why? Please give an example.
3. To what extent do you think you know your conversation partner? Can you trust him/her as a close friend?
4. What can you say about your communication? Do you think it was intimate and sincere. Why? Can you give examples?
5. How did you feel in this interaction? Why? Can you give examples?
6. Please put a X to the most appropriate answer to the below questions.

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					
Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together and helped each other to do the task?					

What would you like to say about these four questions? For all four questions which features of your communication caused / helped you feel like that?

Thank you very much for all your help. ☺

Please rest assured all the information you have provided is strictly confidential and will not be used for any other purposes than the aims of this research.

SESSION 4

A bit longer this time – please keep on reading! ☺

1. What would you like to tell about your online interaction? If you were keeping a journal what would you write in it about this interaction? What were the best and the worst aspects of your interaction?

2. Have your impressions about your conversation partner changed in this session? If so, in which ways and why? Please give an example.

3. To what extent do you think you know your conversation partner? Can you trust him/her as a close friend?
4. What can you say about your communication? Do you think it was intimate and sincere. Why? Can you give examples?
5. How did you feel in this interaction? Why? Can you give examples?
6. Please put a X to the most appropriate answer to the below questions.

	Never	Rarely	Sometimes	Often	Always
Did you feel you were involved in communication?					
Did you feel you could express your thoughts and feelings?					
Did you feel you understand your partner's thoughts and feelings?					
Did you feel you worked together and helped each other to do the task?					

What would you like to say about these four questions? For all four questions which features of your communication caused / helped you feel like that?

The rest of the questions aim to gather your comments and experiences **for all your ooVoo sessions** in four sections: general comments, tool (ooVoo) and tasks, your relationship with your partner, communication, language and language learning. They involve both closed and open-ended questions.

1. Please evaluate the following based on your online video communications with your partner.

1. Totally Disagree 2. Disagree 3. Undecided 4. Agree 5. Totally Agree

STATEMENTS	1 – 5	Comments and reasons:
1. Getting to know the other participant by talking via this online medium gave me a sense of belonging in the communication.		
2. I was able to form distinct impressions of the other participant.		
3. This communication mode is an excellent medium for social interaction.		
4. I felt comfortable disagreeing with the other participant while still maintaining a sense of trust.		
5. I felt comfortable interacting with the other participant.		
6. I felt that my point of view was acknowledged by the other participant.		
7. Online conversations helped me to develop a sense of collaboration.		
8. I felt comfortable introducing myself on this online medium.		
9. I felt comfortable expressing my feelings on this online medium.		
10. Conversations using this online medium was more impersonal than face-to-face conversation.		

STATEMENTS	1 – 5	Comments and/or reasons:
1. I look forward to the opportunity to interact with others via this online medium.		
2. Although I speak fluently in English in class, I was at a loss of words when interacting via this online medium.		
3. I would always avoid communicating via this online medium if possible.		
4. I felt that I am more skilled than most others when interacting with people via this online medium.		
5. I would be afraid to express myself in group discussions via this online medium.		
6. I was afraid to voice my opinions when interacting with my partner via this online medium.		
7. I disliked having to limit my communication to what is possible via this online medium.		
8. I would like to get involved in discussion via this online medium.		

2. What do you think about ooVoo? Was it easy to use?

3. What was the worst aspect of your online audio/video interactions?

4. What was the best aspect of your online audio/video interactions?

5. a) How did you feel about talking in English online to another Turkish student? Can you give an example?
- b) Would you rather speak to a native speaker of English? Why?
- c) Would you like to speak to a foreigner in English who is not a native speaker of English? Why?
6. a) Which elements of your audio/video communications helped you with your interactions?
- b) What are your comments about the effects of the ability to read/write, listen/speak and see each other in your conversations?
7. Please compare your online audio/video conversations to your interactions with a friend of yours in class while doing an language learning task. How similar/different do you think are these interactions? In which ways do you think they are similar/different? Can you give examples?
8. Have your online audio/video conversations helped you improve your English? Can you give an example?
9. If your university teacher wanted to do a similar collaboration with another university in Turkey as part of the course or as an additional activity, would you like to take part? Why?
- a) For which purposes and how do you think such an activity could be used?

b) What kind of benefits can such an activity have in terms of foreign language development?

c) What kind of challenges could be faced when carrying out such an activity?

10. a) Would you be willing to arrange similar online interactions when you become a teacher?

b) If so, what would you do differently?

c) What would you recommend a teacher who is arranging similar online interactions?

11. Finally: Is there anything else you would like to comment about your online audio/video communications?

Thank you very much for all your help. ☺

Please rest assured all the information you have provided is strictly confidential and will not be used for any other purposes than the aims of this research.

Appendix 9: Interview guide

1. Can you briefly talk about your use of online communication tools.

Prompts:

Do you communicate with foreigners online?

How and when do you prefer to use audio and video?

How and when do you use the camera? Where is it positioned? For what purposes, etc.

2. What would you like to say about this study? How do you feel about it overall?

3. Can you talk about your first impression about your friend and how this developed in time:

Prompts:

To what extent was his/her voice and image influenced your impressions?

4. What can you say about your partner and your relationship with him/her?

Prompts:

Do you feel that you know him/her?

How close do you think you are?

Would you say s/he is a friend of yours or a stranger?

5. Do you think the available modes (write, listen, see) affected your interactions? If so, in which ways?

Prompts:

in terms of doing the task with another person

in terms of how much you know your partner?

in terms of how close you feel your partner

Please provide reasons and examples.

6. Do you think the tasks affected your interactions? If so, in which ways?

Prompts:

in terms of doing the task with another person

in terms of how much you know your partner?

in terms of how close you feel your partner

Please provide reasons and examples.

7. Do you think the way your partner behaved affected your interactions? If so, in which ways?

Prompts:

in terms of how much you know your partner?

in terms of how close you feel your partner

Please provide reasons and examples.

8. What do you think is important in online communication via videoconference?

Prompts:

What makes you feel valued and important?

What makes you feel that you are involved in communication?

What makes you feel that you are working together with your partner?

How do you feel when your friend mentions your name?

How do you feel when your friend looks at you? / How do you know your partner is looking at you?

How do you feel when your partner agrees with what you say?

How do you feel when your partner disagrees with you?

How do you feel when you find out that you have common interests?

How do you feel when your partner compliments you?

How do you feel when your partner encourages you to talk more? / How does she encourage you to talk more?

What makes you want to continue the conversation with your partner?

How do you understand whether your partner wants to continue the conversation?

What makes you want to have more sessions with your partner?

How do you understand whether your partner wants to have more sessions with you?

How do you know how your partner feels?

How do you know that your partner needs help? / How do you provide help?

How do you know that your partner tries to help you? / How does she provide help?

9. In your videoconference sessions were there times when you felt you were in the same room with your partner?

10. In your videoconference sessions were there times when you felt you did not notice the computer interface as if you were communicating directly?

11. Think about the last time you moved an object with another person (for example, pushing a box, carrying luggage, moving furniture, etc.). How similar was your experience in this videoconference session to that experience in terms of 'doing something together'?

12. Is there anything else you would like to add?

End of interview.

A three minute recording from the pilot will be used to stimulate participant comments on the effects of different modes on how they interpret the interactions.

Appendix 10: Transcription used for stimulated reflection

This is the transcript of the video extract to elicit participants' reflections. The video file can be found in the attached CD (Extract 4.4-1). Aylin and Birsen are talking online about their close friends.

Aylin I like having time with my friends. And you know we started university this year, so I don't have so many friends.

Birsen me too

Aylin I have only one in the class, but I speak with everybody but only one friend is near me. I want to be a sociable person because I don't like being shy. That's all :)

Birsen I can say I'm just like you.

Aylin Yes :)

Birsen But I still have more close friends.

Aylin Yeah, it's very difficult to find close friends. I have two or three close friends in the high school but university is different. I don't think that I can find, because when I go to the university I can see a lot of people but they are very crazy :) So, may be they can't be close friends to me, with me.

Birsen Hmm..

Aylin But, I like you :)

Birsen Thank you :) I think it'll take some time but I'm sure you'll find your close friends, because..

Aylin It's not important actually, because I like be alone, because nobody can say bad words to you. And nobody can make you cry :) So be alone is very good :)

Birsen You're right! You said you have best friend from high school, so can you mention about him or her?

Appendix 11: Final questionnaire

How important were these items in your ooVoo communications in order to reflect personal characteristics into the interaction and for the relationship to be close, warm and intimate. Please rate 1-5:

1 – not important

2 – somewhat important

3 - important

4 – very important

5 – extremely important

* Phase 1 questionnaire did not include rating.

Rate 1 – 5*	Actions	b) I did this	c) My partner did this	Why was this important? How do you interpret this, how did you feel, how did it affect your communication?
	expression of emotions			
	use of humor			
	cajoling			
	irony			
	understatements			
	sarcasm			
	self-disclosure			
	apologies			
	compliments			
	expressing appreciation			
	expressing admiration			
	encouraging			

	providing emotional support			
	continuing a thread			
	quoting from other's messages			
	referring explicitly to other's turn			
	starting a new thread by asking questions			
	starting a new thread by saying something new			
	continuing a thread by asking questions			
	continuing a thread by saying something new			
	asking opinions about the topic			
	giving examples about the topic			
	asking for explanation by examples			
	asking questions to clarify/avoid misunderstandings			
	asking to repeat			
	complementing			
	expressing agreement			
	expressing disagreement without offence			

	pointing out commonalities			
	addressing by name			
	addressing by a nickname			
	addressing using a general/special phrase, such as my dear, honey, my friend			
	addressing using inclusive pronouns; we, us, our, etc.			
	salutations			
	expressing best wishes			
	referring to future conversations			
	smiling / seeing one smile			
	seeing gestures			
	waving			
	using facial expressions to express emotions			
	looking at the camera			
	looking on screen			
	staying close to camera			
	speaking in a loud voice			
	speaking in a quiet voice			
	speaking in a cheerful tone			
	speaking in an excited tone			
	speaking in a nervous tone			
	seeing the partner do other things			
	repeating expressions to			

	help understanding			
	showing that one is open to communication with gestures			
	showing that one is tense with gestures			
	Any others? Please specify.....			
			

Appendix 12: Transcription conventions

Symbol	Name	Use
[text]	Brackets	Indicates the start and end points of overlapping speech.
(# of seconds)	Timed Pause	A number in parentheses indicates the time, in seconds, of a pause in speech.
(.)	Micropause	A brief pause, usually less than 0.2 seconds.
.	Period	Indicates falling pitch or intonation.
?	Question Mark	Indicates rising pitch or intonation.
,	Comma	Indicates a temporary rise or fall in intonation.
-	Hyphen	Indicates an abrupt halt or interruption in utterance.
ALL CAPS	Capitalized text	Indicates shouted or increased volume speech.
:::	Colon(s)	Indicates prolongation of a sound.
(text)	Parentheses	Speech which is unclear or in doubt in the transcript.
((text))	Double Parentheses	Annotation of non-verbal activity.
<u>text</u>	Underlined	Speech with certain qualities as explained in the nonverbal column or in parentheses

Adapted from Jefferson (1984). Notations specific to Extract 5.2-1 and Extract 5.4-2 are stated at the beginning of these extracts.